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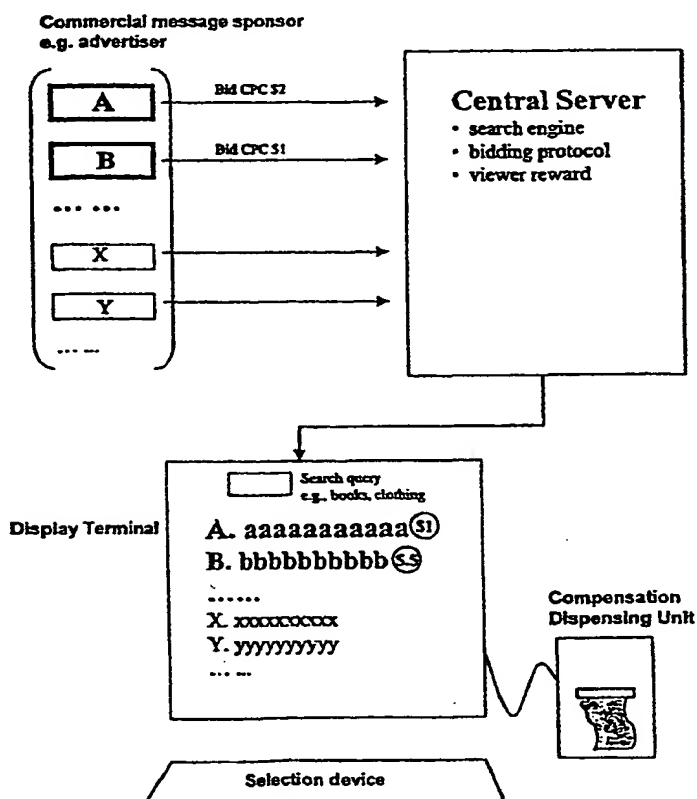
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[Continued on next page]

(54) Title: **ELECTRONIC MARKET MAKER OF ELECTRONIC ATTENTION**



(57) Abstract: The present invention pertains to methods and mechanism for marketing consumer attention for advertising information in a rewards-based manner. According to an aspect, a search engine is provided which allows consumers to enter topics or search terms corresponding to a consumer topic of interest, and in which a search is performed for web sites or advertiser sites that correspond to the consumer topic. Advertisers are permitted to bid for the consumer attention by establishing reward amounts, and any advertiser sites that result from the search are sorted based upon their bid amounts. The higher-reward advertiser sites, or links to those sites, are displayed more prominently than the lower-reward advertiser sites.

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## INTERNATIONAL SEARCH REPORT

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## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60

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## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/26, 37

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Please See Extra Sheet.Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Extra Sheet.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,848,407 A (ISHIKAWA ET AL.) 08 December 1998, the background and the summary of the invention.	1-50
Y,P	US 6,061,659 A (MURRAY) 09 May 2000, the background, and the summary of the invention.	1-50
Y	US 5,768,521 A (DEDRICK) 16 June 1998, Figs. 1-6C, and the summary of the invention.	1-50
Y	US 5,717,923 A (DEDRICK) 10 February 1998, Figs. 1-8 and the summary of the invention.	1-50
Y	WINGFIELD, Engine sells results, draws fire, from URL://www.news.com/News/Item/0,4,1635,00.html; posted on 21 June, 1996.	1-50



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means	
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Y	MARDESICH, Web site operators pay for top billing - search engine allows site sponsors to buy place on special list, from Knight Ridder Newspapers, posted date: March 1998.	1-50
Y	HILTY, GoTo.Hell - What happens when an online search engine accepts cash from Web sites?, from URL <a href="http://www.cowebkly.com/ink/archives/97/27byte-3.11.98-1.htm">http://www.cowebkly.com/ink/archives/97/27byte-3.11.98-1.htm</a> ; posted year 1997.	1-50
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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Y	"Frequently asked questions NT image search & retrieval (IS&R)" by US Patent & Trademark Office, published in December 1997.	1-50
Y	"Dialog.com --- search solutions" by Dialog Information Service, Inc., from URL <a href="http://tranining.dialog.com/html">http://tranining.dialog.com/html</a> .	1-50
Y	"Automated Patent System (APS) workstation reference manual" by US Patent & Trademark Office, printed in July 1996	1-50
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Y	"BITS", from Adweek -- Eastern Edition, vol.40 issue 14, p46, 1/3p, published date: 05 April 1999.	1-50
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Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WILLIAMS, How to ease your online searches, from Lansing state journal at Lansing, MI, posted on 01 June 1998.	1-50
Y	DAVID DORAN, Search engines ..., from Entrepreneur magazine, pg. 18, posted date: July 1998.	1-50
A	"Disclosure Rules ...", from The Industry Standard, pg.2, posted on 10 August 1998.	1-50
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Documentation other than minimum documentation that are included in the fields searched:

Microsoft Press, Computer Dictionary, 3rd edition, 1997.

American Bankers Association, Banking & Finance TERMINOLOGY, 1999.

Cosidine, Van Nostrand's Scientific Encyclopedia, 6th edition, 1983.

### B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

WEST2.0/DERWENT, DIALOG CLASSIC, PROQUEST DIRECT

search terms: search term, reward, bonus, discount, bid, database, field, identifier, advertiser, query, user  
identification, sort, link, information, web site, instruction, marketing, keyword, product, image, insert, display, award,  
table, sponsor, cost-per-click, CPC, shopper, commercial message, outlet, fraction, attention, attract, authenticity,  
trade, icon, symbol, code



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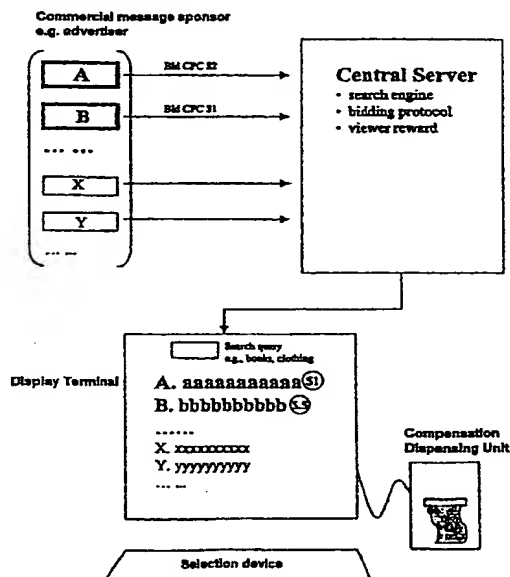
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[Continued on next page]

(54) Title: ELECTRONIC MARKET MAKER OF ELECTRONIC ATTENTION

IMPROVED CPC ADVERTISING



(57) Abstract: The present invention pertains to methods and mechanism for marketing consumer attention for advertising information in a rewards-based manner. According to an aspect, a search engine is provided which allows consumers to enter topics or search terms corresponding to a consumer topic of interest, and in which a search is performed for web sites or advertiser sites that correspond to the consumer topic. Advertisers are permitted to bid for the consumer attention by establishing reward amounts, and any advertiser sites that result from the search are sorted based upon their bid amounts. The higher-reward advertiser sites, or links to those sites, are displayed more prominently than the lower-reward advertiser sites.



IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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## **ELECTRONIC MARKET MAKER OF ELECTRONIC ATTENTION**

### **FIELD OF THE INVENTION**

The present invention relates to a system and method for delivery of commercial  
5 messages to consumers.

### **BACKGROUND OF THE INVENTION**

#### **Limitations with Traditional Channels of Advertising**

10 Attracting foot traffic to specific retail outlets in a shopping mall and attracting  
consumers' attention to specific merchandises on the shelves of a retail outlet are perennial  
challenges to retail merchants and producers of consumer products. Mass media  
advertising, billboard advertising, direct mail marketing, and in-the-mall promotion are the  
traditional means of delivering commercial messages of the merchants and consumer  
15 product producers to consumers.

Mass media (e.g., television, radio, newspapers and magazines) package  
commercial messages with particular content of interest to certain classes of consumers.  
The mass media are paid by the commercial message sponsors to deliver their  
advertisements with the content. Economic value is indirectly passed from commercial  
20 message sponsors to consumers through the content. A major drawback of this method is  
lack of efficiency and waste of resources. Most consumers would rather their reading of  
news print and viewing of TV programs not be interrupted by advertisements and  
commercials. In addition, mass media advertising drives television programming and  
news print content to homogeneity and "lowest common denominator" to appeal to "the  
25 largest audience."

Billboard advertising at public locations (e.g., along freeways, on buses, stadiums,  
buildings, and in subway station) is another traditional form of mass delivery of  
commercial messages. Through strategic location, billboard advertising attracts the idle  
attention of passerby. Common problems for mass media advertising and billboard  
30 advertising include that (1) commercial messages are force-fed one way to passive

consumers and passerby, and (2) there is no assurance that a media content consumer or passerby will pay attention to the commercial message.

In contrast to mass media advertising, direct marketing bypasses mass media and delivers commercial messages directly to consumers by mail, phone and e-mail.

5 Frequently, sponsors of commercial messages use incentives (e.g., "money saving" coupons and discount offers) to encourage consumers to purchase their merchandises. Although coupons can be effective, they cannot be used with television, radio and other popular forms of mass communication. By nature, direct marketing involves collecting and using consumers' personal information for delivery. Consequently, direct marketing  
10 leads to invasion of consumers' privacy, and, in particular, burdens consumers with voluminous junk mails, and uninviting and annoying phone calls.

In mass media advertising and direct marketing, consumers are passive and often unwilling recipients of commercial messages.

Some shopping malls and retail outlets have used computer systems for advertising  
15 and promotions. Typically, the computer system includes a monitor and a touch-screen input device and delivers commercial messages such as advertisements and product or store locator maps. In such systems, commercial messages are usually delivered to consumers in the mass media model by packaging with other content.

## 20 **Limitations with Online Advertising**

The growth of Internet based commerce has prompted the advent of mass media advertising and direct marketing on Internet. For example, commercial messages are posted as banners on popular portals and web sites frequented by viewers for its utility and content. Push technology allows merchants to systematically and periodically deliver  
25 commercial messages to subscribers. However, banners are very easy for web surfers to skip or ignore by simple inaction. Posting commercial messages to online classified sites also has many limitations. There are over 7000 online classified sites scattered about the web and most do not generate enough traffic. Even when someone does find or visits one of these sites, an advertisement is often hopelessly lost in a myriad of similar offerings.  
30 Search engines are another source of frustration. If a commercial web site is not listed as a top site (say in the Top 10) the chances of high traffic visiting the web site is very small

and the chances of everyone being a top site and staying there is even smaller given the enormous number of web sites out in the cyberspace (estimated to be 4 million and growing exponentially). Direct marketing e-mails are intrusive and unwelcome. Most of them either get deleted by many consumers without viewing or get blocked systematically by viewers.

In addition, the existing Internet advertising does not provide direct delivery of custom tailored commercial messages to viewers at a designated retail outlet.

### **Cost-per-Click (CPC) Model**

In Cost-per-Click (CPC) online advertising model, the advertisers are charged for visitors (click-throughs to their websites), not for impressions or page views. The advertiser is charged each time a user clicks on the advertiser's banner. CPC provides real-time reporting of click-throughs and allows advertisement sponsors to reach their target audience, paying only when customers click on their ad and visit their web site ("Pay-for-Results").

### **DRAWINGS**

Fig. 1 depicts the architecture of an aspect of an embodiment of the invention.

Fig. 2 illustrates a bidding process according to an embodiment of the invention.

Fig. 3 depicts an embodiment of improved CPC advertising according to an embodiment of the invention.

Fig. 4 depicts a database table containing advertiser information according to an embodiment of the invention.

Figs. 5A-5C depict database tables containing user information according to embodiments of the invention.

Fig. 6A and 6B are process flow diagrams according to an embodiment of the invention.

Figs. 7 and 8 illustrate hardware and system components that can be utilized in an embodiment of the invention.

Fig. 9 illustrates a search result page according to an embodiment of the invention.

## DESCRIPTION OF EMBODIMENT(S) OF THE INVENTION

According to an embodiment of the present invention, a network based advertising method and system is provided that can be retail-outlet specific. By "retail-outlet" is meant a physical locale frequented by people at large with a defined and shared purpose.

5 It includes, but is limited to, shops and other places where people go to obtain goods and services. For example, bookstores, airports, office towers, and movie theatres are all considered retail outlets by this definition in that bookstores are frequented by people who purchase books and magazines, airports are frequented by people who travel, office towers are frequented by people who go to work, and movie theatres are frequented by people  
10 who watch movies. Note, however, that the present invention is also applicable to be used on non-retail-specific computers or computing appliances connected to publicly accessible networks or network sites, such as the Internet.

Figure 1 describes such a method and system at work. In this example, computer terminals are placed at a bookstore, a department store, and an airport. These terminals  
15 are linked to one or more servers via the Internet. Each terminal has a homepage presenting a number of banners, icons, or URLs (hereinafter all referred to as "banners") on the screen. Each banner is a hyperlink to a commercial message of a sponsor. Each terminal has a pointing device for a viewer to choose an encapsulated commercial message for viewing. A search engine may be incorporated with the system to allow a viewer to  
20 search for commercials relating to a certain merchandise or service.

By "commercial messages" is meant advertisements for goods and services, information or instructions on goods and services, educational materials, exhibition materials, community, social, political, religious or legal information, and any other information or message that is intended by its sponsor to disseminate or promote.

25 Each banner posts a reward to those who click the banner and read the commercial message. When a shopper or passerby clicks on the banner, the encapsulated commercial message is displayed on the terminal and played to the viewer. The reward will then be credited to the shopper. The reward can be in various forms, including, but not limited to, cash, store credit, product rebate, and credit to a magnetic card, credit card or bank  
30 account associated with the viewer of commercial message.

The sponsor of the commercial message will be charged for the click-through and be notified of the viewing of its commercial message at the terminal. The commercial message may contain a quiz or other interactivity to assure that the shopper paid attention to the commercial message.

5           Banners displayed on terminals at different retail outlets are tailored for that location. In this example, the terminal at the bookstore has banners for a book commercial from publisher, a lady's apparel commercial from an apparel company, and a theme park commercial from a local theme park. The terminal at the department store has banners for the lady's apparel commercial and the book commercial. The terminal at the airport has  
10       banners for the theme park commercial and the book commercial.

          Banners displayed on the same terminal have different degrees of prominence. In the example of banners on the terminal at the bookstore, the banner for the book commercial appears at the top of the screen, has a larger banner than others on the screen, and offers viewers a higher reward, all of which are designed to entice shoppers to read the  
15       encapsulated book commercial.

          The network illustrated in Figure 1 allows merchants to deliver commercial messages at their desired retail locations. A prospective commercial message sponsor can access a database online to find out the locations of terminals on the network. This prospective sponsor can learn the profile of the retail outlet such as what products are sold  
20       there and what type of shoppers visit the retail outlet.

          Once a desirable retail outlet is selected, the sponsor can contact the operator of the network to place the sponsor's banner on a terminal at the retail outlet. The network operator may charge the sponsor a flat price for placing the banner there for a specific amount of time or charge the sponsor per click-through to the commercial message. In  
25       this example, the network operator charges the sponsor per click-through. Part of the payment from the sponsor is passed along to the viewer as a reward.

          The price per click-through may be predetermined by the network operator or set by a bidding process among message sponsors. The network operator may provide a price list for presenting commercial messages at different terminals and at different degrees of  
30       prominence on a screen. In this example, a bidding process is used to allocate placements of banners on a screen. In this process, sponsors compete with each other by naming their

prices per click-through. The higher bidder gets more prominent showing on the terminal (e.g., top of the screen, bigger banner, or longer message play-time).

Figure 2 illustrate such a bidding process. In this example, the book publisher regards the bookstore as the best location to promote its book and achieve sales at the bookstore although the department store and the airport are also good places to promote the book. The apparel company thinks that the department store is the best location to promote its lady's apparel and to a lesser extent the bookstore. The theme park considers the airport as the best location to attract tourists and to a lesser extent the bookstore. Accordingly, the sponsors decide where to bid and how much to bid for each particular location. The system may be designed to allow sponsors to view the bidding result and increase their bids to move up their banners on the screen to attract viewers.

The system may allow a banner to expire once a specific number of click-throughs (or some other targets) have been reached. Such mechanism allows sponsors to accurately budget their advertising campaigns. The system may also give each shopper a unique ID and issue reward to bearers of ID to assure sponsors that they are paying for viewing by new readers.

### **Benefits**

The above described commercial message delivery system and method have many benefits to advertisers (i.e., sponsors of commercial messages), retail outlets, and consumers.

#### **Benefits to sponsors of commercial messages:**

- ☐ Attracting shoppers to sponsor's products at the retail outlet
- ☐ Targeting to specific retail outlet or public location
- ☐ Cost efficient level of reward for specific retail outlet
- ☐ Guaranteed delivery of message to viewers
- ☐ Guaranteed unique visitors
- ☐ Performance-based, cost-effective solutions
- ☐ Real-time advertising campaign statistics
- ☐ Accurate return on investment for a given budget



**Benefits to Retail Outlets:**

- ☐ Attracting foot traffic to the outlet with reward
- ☐ Facilitating in-store promotion of specific merchandises
- ☐ Increasing in-store sales by offering immediate redemption of reward at the retail outlet
- ☐ Direct compensation for reading commercial messages
- ☐ Immediate reward
- ☐ Searchable commercials

**Benefits to Consumers:**

- ☐ Direct compensation for reading commercial messages
- ☐ Immediate reward
- ☐ Searchable commercials

Traditional advertising on the Internet is not sensitive to the locale of the terminal and thus provides mostly messages irrelevant to shoppers' immediate interest at a retail outlet. In contrast, the system and method of this invention permit the presentation of ads that are custom-fit to a retail outlet to promote specific products within physical reach of consumers, thus ensuring that the commercial messages will be attentively viewed by consumers. This ability to finely target (and customize) ads based on the commercial setting and location of a group of consumers maximizes efficiency and benefits both the advertisers and the consumers.

For example, when a consumer goes to a bookstore to buy books, an electronic ad displayed on a terminal inside the bookstore promoting a book would be very effective in drawing the consumer's interest in checking out the book and possibly purchasing the book. Likewise, an electronic ad promoting a refrigerator would be very effective at a home appliance store. Further, airport would be a good location for advertising local tourist attractions such as theme parks.

By offering direct compensation to viewers, the present invention is particularly useful with regard to information that "pursues the consumer" rather than waiting to be discovered.

By offering the attention of geographically relevant consumers, the present invention presents a convenient, low cost, yet effective advertising solution to local small businesses and multinational companies alike.

Message sponsors could use the system of the present invention to attract customers to their products shelved in the retail outlet, distribute promotion coupons to attract customers to another retail outlet in the vicinity of a retail mall or similar shopping area. They can also use the system to disseminate social, cultural, political, religious, educational and charitable messages and information.

The reward to customers could be issued to a value bearer (e.g., a magnetic card) for use at selected retail outlets. These customers would be able to bring the cards to a retail outlet equipped with a card reader to redeem the credit towards the purchase of goods or services at the outlet. This way, the system increases sales at outlets equipped with a terminal. In addition to direct cash reward, customers can be wooed with coupons, rebates or discount for merchandise. Such coupons could be dispensed from a dispenser operatively linked to the terminal and the server.

### **Electronic Market Maker of Consumer Attention**

A consumer's attention to commercial messages is a valuable commodity. The existing portals on the Internet pursue this commodity by offering interesting content and/or useful functions. Some web sites pursue this commodity by offering "free" goods to those who allow the intrusion of a constant stream of commercial messages, e.g., "free" personal computers at [www.freepc.com](http://www.freepc.com).

The present invention delivers commercial messages to particular commercial settings (e.g., specific retail outlets) where shoppers, by their choice being there, have proclivity for certain commercial products and corresponding interest in certain types of commercial messages. When such specific targeting of commercial messages is combined with direct purchase of consumers' attention, the present invention provides a highly efficient way of getting commercial messages through to consumers. Although, it should be noted that, because the commercial messages presented using the system and method of the present invention will be targeted to consumers visiting a specific retail outlet with

regards to their needs, interests, and preferences, it is very likely that consumers would be inclined to view the messages even without a cash incentive.

The present invention therefore encompasses an electronic "market maker" that brokers the buying and selling of the "attention" of shoppers at specific retail locales. The commodity is consumers' attention. The buyers are commercial message sponsors. The sellers are consumers. The network is the market maker or an electronic clearance house of the commodity. By packaging this commodity as that from shoppers visiting specific retail outlets, the present invention provides a well characterized commodity and thus value to the buyers. In another aspect, the present invention increases the convenience and efficiency of the trading between buyers and sellers by providing a plurality of posting terminals at retail outlets.

#### **Keeping Consumers to the System**

In order to keep track of users of the advertising network, an electronic sign-up form could be provided for sign-up of users. Each user can be issued an ID card for redeeming reward. By allowing consumers to use the reward card to purchase goods and services, the system provides access to the purchase preference of consumers and analyze their purchase preference. Such analysis will be especially helpful when conducted in view of the commercial messages viewed by the ID card bearers.

Frequency programs can be developed to promote customer loyalty. The program records a user's viewing frequency and total number, calculates award points, updates the award account of enrolled users, and communicates that number of awarded points to the user.

Rules can be established in order for the participants to earn awards under the programs. In one system, a certain amount of "points" is accorded to a consumer when he or she views a commercial message on the system. When a user has accumulated a sufficient number of points, he may redeem these points for an award. The incentive program may award a flat payment of cash to the participants for attaining a certain goal. Alternatively, monetary amounts are awarded to participants for expenditure through the participants' credit instrument accounts depending on the participant's achieving a certain

level of performance. The participants can choose to withhold none, part, or the entire monetary amount eligible for allocation toward the credit instrument amount.

The present invention may include provisions for consumers to view the bonus points available for redemption over the Internet.

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### **Improved CPC Advertisement**

The present invention also features an improved method and system of delivering commercial messages on a cost-per-click basis. This aspect of the invention is applicable to Internet based advertisement everywhere, including delivery to home computers and computers at retail outlets.

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An embodiment of such an advertising system comprises plural computers connected to a communication network (e.g., intranet, internet, or wide area network), with the network connected to a central server. The central server is connected, through the communication network, to the plural viewing platforms or computers. This advertising system utilizes client/server software to allow users of the client software or advertisers to log into a server and publish information about a product or service. Once the information is published, other users of the client software may log into the server to browse or search for the information by means of a search engine incorporated in the central server.

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The advertisement system described herein is based on the cost-per-click advertising model. Advertisers only pay for actual viewing of their commercial message or visits to their websites instead of simple exposures. As illustrated in Figure 3, the system allows advertisers to bid for consumer attention, determines the ranking, and displays the advertisers' commercial messages according to their rankings to provide higher bidders with priority presentation. Furthermore, the system rewards viewers with cash or other credit compensation in order to attract viewers' to view the commercial messages or visit advertisers' websites.

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The advertising system is able to route digital information between any computer associated with an advertiser and the central server to provide the following functions:

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- (1) The advertiser can use a computer connected to the advertising system for transmitting his digital information profile ("account information") to the central server. The

account information profile may include commercial messages and/or the URL(s) identifying and linking to the advertiser's website. The account information may also include keyword strings or terms provided by the advertiser which are relevant to said commercial messages or the contents of the advertiser's website. Said messages and URL(s) can be retrieved and viewed by a viewer from a viewing platform by activating the functions of a search engine incorporated in the central server using the same keyword strings or search terms contained in a particular advertiser's account information profile. Said commercial messages may include, but not limited to, advertisements for goods and services, information or instructions on goods and services, educational materials, exhibition materials, community, social, political or legal information, and any other information or message that is intended by its sponsor to disseminate or promote.

(2) The advertiser can transmit an order ("bid") from his computer to the central server over the communication network. The order may specify the amount of money the advertiser will pay to the system operator for each click-through ("cost-per-click" or "CPC") and the means and forms of payment. The central server, through a software design, will track the number of click-throughs performed by viewers, calculate the payment due from the advertiser based on his stored bidding CPC, and collect said payment from the advertiser. This advertising approach allows the advertiser to only pay for actual viewing by a viewer of his commercial message displayed on the viewing platform. The advertiser does not pay if there is no viewing of the commercial message displayed on the viewing platform.

(3) A computerized operation can be performed at the central server based on the advertiser's bid price or CPC which determines the priority of the advertiser's commercial message as displayed on the viewing platform. The priority can be represented by the order of appearance, position and size of the said commercial message when it is retrieved by the viewer and displayed on the viewing platform.

- (4) The advertiser can view his own CPC bid and compare with other advertisers' CPC and modify his CPC bid in order to achieve a higher priority for his commercial messages than other advertisers'.

5     **A. Central Server**

According to an embodiment of the invention, the advertising system comprises a central server incorporating computer hardware and client/server software. The central server is connected to plural computers associated with advertisers and plural viewing platforms via a communication network. This advertising system allows for publishing  
10     advertisers' information relating to products and services to a remote computer database system acting as a central server from a computer acting as a client via a communication network. Such a system comprises:

- client software operating on the computer acting as a client,  
15
- server software operating on the remote computer database system acting as a central server,
- transmitting advertiser account information profile and bids for CPC into the central  
20     server,
- dialog maker for allowing said client to communicate an entire file containing information to the central server,
- 25     - search engine for allowing a client to search data in the central server and displaying resulting information on a viewing platform,
- viewing platform for allowing the client to retrieve data from the central server corresponding to resulting information,

- differential display of the commercial message on the viewing platform for a computerized operation to be performed at the central server based on the advertiser's bid price or CPC which determines the priority of the advertiser's commercial message as displayed on the viewing platform; priority can be represented by the order of appearance, position and size of the commercial message when it is retrieved by viewers and displayed on the viewing platform.

### **B. Viewing Platform**

An embodiment of a viewing platform comprises plural viewing terminals connected to a digital computer network. The digital computer network is connected to the central server to receive and display an identifier of the commercial messages on a display unit. The identifier may include the URL and/or name of the advertiser, an icon representing the commercial message and/or a brief introduction on the content of the commercial message.

The display unit may display along side the identifier of the commercial message a special icon or other symbol representing compensation to the viewer in the event that he elects to view the formal content of the commercial message. The compensation may be in the form of cash, or other credits, and may be changed as communicated by the central server. For example, if the advertiser increases his CPC bid, the compensation to the viewer may also be increased and displayed for the viewer. The display screen can display at least one and more than one identifiers of different commercial messages together with compensation information. The viewing platform also comprises a device and means to allow the viewer to make selections for different identifiers on the display screen.

One or more of the following factors may lead a viewer to select an identifier of a particular commercial message: compensation he will receive for viewing the formal content of the commercial message, priority or ranking of the commercial message identifier, relevance to his interest, and the appeal of the commercial message identifier.

Once a selection is made by the viewer, the display unit will then display the formal content of the particular commercial message for the viewer. The viewer can choose to view more than one commercial message by repeating the selection process and

thus earn multiple rewards. The display screen may display an icon or symbol to inform the viewer the total amount of compensation he has received for selecting and viewing commercial messages.

The viewing platform may also incorporate hardware and software elements to effect the transfer of compensation to the viewer. Such transfer may be in the form of cash, bank check, coupon or other forms of credits delivered to the viewer.

In a preferred embodiment, the viewing platform may perform all functions as described above except providing compensation to the viewer. The entire advertising system may also function without offering compensation to the viewer.

### **Collectibles Associated with Web Surfing**

In the prior art, cash and other fungible credits (e.g., airline mileage points and hotel frequent user points) have been offered to web surfers to attract them to visit particular web pages. Such credits are homogenous, fungible and bear no relationship to the time, place or other particulars of the click-through event. Aside from monetary or trading value, such credits do not have any collectible value.

In that regard, the present invention features a method and system for enhancing the appeal of viewing advertisements online. In particular, this invention provides a multifunctional reward that is a stamp, token or other collectible physical object (hereinafter collectively referred to as "stamp") that serves as (1) a receipt for click-throughs to advertisers' web pages, (2) a carrier of monetary and/or trading value, and (3) a collectible having potential for enhanced value.

As a receipt, the quantity, face value and design of a stamp offered to a web surfer reflect the number of click-throughs the web surfer achieved in a reward period. As a carrier of monetary and/or trading value, the stamp bears a numeric value in cash and/or trading credit. One could exchange the stamp for cash, or goods or services offered by designated merchants. For example, the stamp could be made redeemable for a particular brand of soda or at a particular chain of restaurants. In this way, the stamp itself becomes a promotional tool. As a collectible, the stamp is an object of rarity because a particular or unique design is selected for a specific click-through event or time period (e.g., month,



week, or day) and the production and dissemination of a particular design is limited by the number of click-throughs during the specific click-through event or time period.

The various functions of the stamp could be achieved by literal, mathematical, mechanical, graphical, audio/visual, multimedia, physical and architectural features and indices. Indicia on the stamp may include details of the click-throughs (e.g., web page address and/or advertiser's identification information). Thus, stamps that are identified with a famous web event -- particularly if the ticket represented a click-through to a web site at its launch or some other special events -- have the potential for becoming valuable memorabilia. Like postage stamps, toys and commercial promotional gifts, the stamp of this invention could carry indicia of cultural icons, commercial logos, cartoon characters, memorable historical, scientific, sports, entertainment, cultural and social events and characters.

The stamp may include authentication indicia for identification, tracking and preventing forgery. Authentication indicia may comprise a serial number or other unique marking. Instead of a serial number, a mathematical algorithm or other code that allows verification of the ticket's authenticity may also be used. The serial number or other marking may comprise numbers, letters and combinations of numbers and letters, a radio signal, or may be imprinted on the stamp in the form of a bar code, magnetic characters, or other machine readable indicia.

In one preferred embodiment, the stamp could either be traded in for cash or be retained as a souvenir, but not both. In another preferred embodiment, the stamp has a first part used to collect cash or redeem trading credit, and a second part retained by the web surfer as a souvenir. The first part need contain only monetary value or trading value information, while the second, or souvenir record, part contains information relating to and/or specifically designed for the click-through event and/or click-through period.

The value of a collectible is determined primarily by its rarity and generally inversely proportional to the quantity available. Rarity is usually created in one of two ways. The first way is by limiting production, and the second is through accident. An example of value affected by limited production is fine art. There ordinarily exists a sharp gradation in price and value between an artist's oil painting (limited by its nature to only one); a signed, numbered print by the same artist (expressly limited to a small number);

and an unsigned, unlimited edition of a print by the same artist. The second way in which valuable rarity in collectibles has developed is through accident. Mis-printed postage stamp and mis-struck coins are examples. Another accidental way in which rarity develops is through the disappearance of a once abundant item over time.

5 It should be noted that the collectible referred to in this disclosure is distinguished from the deliberate, large volume production of items that are designated as "collectibles" at the time of sale. Such items, e.g., "new issue" postage stamps and mass produced baseball cards, often have increased production as demand rises and are unlikely to have any real value (they are sometimes referred to as "contrived collectibles").

10 The stamp of this invention produces a keepsake having genuine rarity because of limited production and/or built-in accident factor. First, the issuance of stamp is ancillary to click-throughs, and it is the click-through that must be paid for by advertisers, not the stamp. The number of units existent would be limited by the number of click-throughs placed on the web sites during a designated time period or event. In a preferred  
15 embodiment, different stamp designs are provided for different magnitude of credit, and, as the denomination of the awarded credit increases, the stamp rarity increases as well. By limiting the issuance of certain stamps to the larger denomination rewards, rarity can be enhanced. In another preferred embodiment, a stamp bears indicia of the visited web site (e.g., a logo) or a specific web event. At the time of clicking through to a web site, a web  
20 surfer will have no way of knowing how many others are doing the same. Many fewer stamps will be issued for the obscured, for example, than for the favorites. In this embodiment, the degree of rarity of an individual stamp thus depends in large part on chance.

As may be readily appreciated, use of the stamps of this invention enhances the  
25 appeal of click-through to web sites of all kinds that offer such reward, and promotes a continued and growing interest in such activity. Legitimate rarity of the souvenir record provided by the stamp is assured because it can be obtained only by clicking through on hyperlinks, banners, icons and the like offered on certain web sites.

Accordingly, it is an object of this invention to provide a reward system for  
30 attracting click-throughs to web pages and to provide a method for enhancing the appeal of click-through to web pages.

**Example 1. Consumer's Perspective**

Bob and Jane go to the Marketplace Mall for shopping. While Jane is spending time at G. K. Penny, a large department store, Bob decides to check out the latest high-speed modem but is attracted to several booths outside of the computer store with eye-catching banners hung across: "Compare Price and Earn Cash!" "Surf the Net and Get Paid!"

Bob decides to check it out. Inside the booth he sees a customized computer work station (e.g., a viewing platform). The instructions tell Bob that one can perform customized internet-based searches on the viewing platform for products and services. Each search query would lead to an on-screen display of the websites (shown as URL links) of merchandisers or companies that offer the specified product or services. Each time someone clicks on a particular company's URL, the network operator would pay certain amount of cash to that individual immediately on the spot (or other types of rewards and payment forms).

Bob starts with the search screen. Because Bob is a first-time user, the work station begins with a registration process and assigns Bob a unique identifier, e.g., an account number specific to Bob.

As Bob enters the search page, he is presented with a choice of purchase preferences such as "Buy On-Line" and "Buy from a Store Near You" (with location determined automatically or by geographic information such as zip code). Bob selects "Buy On-Line" and in the search box types "modem". The screen quickly returns a collection of URLs of companies that sell modems on-line. To increase the search speed, fewer bit-intensive displays such as graphics and color banners are preferably utilized.

Meanwhile, Bob is attracted to a highlighted message bar beside each displayed URL, which shows the amount of cash Bob would earn by clicking and visiting that particular website. Bob also sees that he would be paid more to visit websites that are displayed upfront than those that are further down the page (i.e., the more promptly displayed website have a higher reward amount).

Alternatively, the icon (e.g., a colorful stamp) beside each displayed URL identifies a reward that is a collectible object that could be (a) redeemed for cash, and/or (b) redeemed at designated merchants for goods or services. For example, Bob could

receive one or more stamps having a cash redemption value and/or trading credit. Bob could redeem the stamps for cash or take the stamps to designated merchants for goods or services. The collectible object would be an object of rarity in that a particular or unique design is selected for a specific click-through event or click-through time period. The reward would have features and indices that are uniquely associated with a click-through event or a click-through period. For example, if Bob clicks on a web site during its launch period he would receive a commemorative gift celebrating the launch of the site. In another example, Bob would receive a gift bearing a logo or cartoon character representing a particular holiday season when he used the system to access advertisers' web sites. Different levels of reward would be associated with different types of collectible objects. The more websites Bob visits, the higher the monetary value of the reward and the rarer the collectible object Bob would receive.

Bob clicks on the first URL, an on-line computer store, for which it would give him the highest compensation. As he does so, another message bar at a corner of the screen begins a display which tells Bob the total amount of cash he had earned so far. Meanwhile, Bob is brought to the website of the on-line computer store and quickly finds the modems he is looking for. Some time later, Bob has visited 10 websites that are returned by his search query and places an order on-line. While doing so, he has earned a certain amount of cash. He logs out of the viewing platform and a check is printed out of a printer next to the work station – with Bob's name and in the amount of the cash he just earned.

By now Jane has decided on a set of European branded cosmetics in G. K. Penny, but she wants to check whether there are better deals in other stores. So she also logs into the work station and searches for cosmetics under the local purchase page (unlike Bob, Jane has not bought anything on-line before, so she prefers to browse the listings of local stores). After typing in her search query for cosmetics, Jane finds the local M-Mart, a giant discount store, is offering a discount on the exact brand of cosmetics she has seen in G. K. Penny. Like Bob, while she visits the websites of the local stores, she is informed by the work station how much cash she has earned, which she gets at the end of her search session.

Later at home, Bob logs into the search engine/advertising system from his own personal computer. There he can perform searches on products and services, visits relevant websites, and receive compensation as credits in his on-line account with the search engine/advertising system. He can later redeem his accumulated credits and get cash from any station of the advertising system, or is sent his reward (e.g., cash, check, collectibles, etc.) through the mail, or has transfers made electronically to his credit card or other bank/merchant accounts.

### **Example 2. Advertiser's Perspective**

Peter is the owner of Peter's Garden Supplies. He is a new advertiser on the advertising system. Today he logs into his store's web page on internet and see that the web page's visitor counter show more than 200 visits since two days ago, when he signed on as an advertiser, which is 5 times more than the usual traffic. Furthermore, he has 35 inquiries in the email and 22 on-line orders. There is also an email from the advertising system informing him that his account's balance is nearing zero and asks whether he wants to top up the account. Such an email can be generated as automatic messaging from the advertising system regarding account status.

Peter clicks onto the advertising system's website and logs into his account. There he is able to authorize the top-up of his account through his credit card. In fact, since Peter is pleased at the rate of visits or click-throughs from his listing on the advertising system, he decides to set up an automatic re-charge so that the account would be topped up whenever the balance is low. Peter then navigates back to the search engine page and types in the search terms for his own store just to check what other competitors would show up. As the search results are returned, Peter sees a list of gardening suppliers and, to his dismay, his store's URL is now dropped back to the 20th position as opposed to no.1 when he signed up two days ago. Peter knows why from the message bar next to the URLs – the ones in front of his offered more cash rewards to viewers who click on their websites (which means the advertisers paid more to the advertising system to list their URLs). Peter decides to increase his bidding rate (cost-per-click or CPC) for the listing. So Peter logs into his account again and doubled the CPC rate for his store's URL listing. Finished, Peter goes back to the search page and, to his satisfaction, Peter's Gardening

Supplies is now back to no. 1 position! To an advertiser, you pay more, you get better exposure, viewers get more incentive (more cash) to click on your site, and that translates to more visits, more business and more profit.

## 5 Database Structures and Process Flows

According to an embodiment of the invention, status and control information for the advertising system are stored using a database system that is accessible by, or located at, a central server. The database system can be configured using any database architecture, including relational, object-based, object-relational, or flatfile-based database architectures.

Fig. 4 illustrates an example of a relational database table 400 that can be used to store information about advertiser sites displayed by the advertising system of the invention. Each row in table 400 provides information about a separate advertiser site. In this example, row 402 stores information about a first advertiser site ("site\_1"), row 404 stores information about a second advertiser site ("site\_2"), and row 406 stores information about a third advertiser site ("site\_3"). Each column of table 400 contains information regarding an attribute for the advertiser site identified for a row.

In the disclosed embodiment, column 408 contains an identifier for the specific advertiser site associated with a row in table 400. Column 410 identifies the entity that owns the advertiser site identified in column 408. Notice that the advertiser sites identified in rows 402 and 404 both are owned by the same owner (as noted in column 410 for rows 402 and 404). In the present invention, an advertiser may choose to list multiple sites in the advertising system – each site would therefore contain its own listing in table 400.

Column 412 identifies keyword(s) associated with an advertiser site. The listed keywords are utilized by a search engine to find advertiser sites in response to a user query at a computer display terminal.

Column 414 specifies the price-per-click amount that an advertiser is willing to pay for a particular advertiser site. Each amount set forth in this column can be associated with a specific location. For instance, column 414 of row 402 indicates that the click-per-

view amount when the site\_1 advertiser site is viewed at a bookstore is \$1.00, but is only \$0.50 when viewed at a department store, and is \$0.25 when viewed at an airport. For all other locations, column 414 indicates that the click-per-view amount for site\_1 is set at \$0.10. Similarly, the click-per-view amount for site\_2 (as noted in column 414 of row 404) is set at \$0.50 for a bookstore, \$1.00 at an auto store, at \$0.10 if the user is viewing the advertiser site from a home-based computer, and is set at \$0.05 all other locations.

The click-per-view amount for site\_3 (as listed in column 414 of row 406) for users at a book store is \$0.75 and is set at \$0.05 for users at a department store. Notice, however, that users at all other locations receive no reward for viewing that advertiser site. This feature of the invention allows an advertiser to limit reward-based advertising to only specified viewing locations.

The amounts listed in column 414 are also used in the bidding process to determine which advertiser is listed in a more prominent location when displayed to a user. Thus, if a search for advertiser sites is made from a bookstore using the keyword "books", then both site\_1 and site\_3 will match that search term, but site\_1 will be listed more prominently because it has a higher click-per-view amount for a bookstore than site\_3.

According to the invention, a click-per-view amount can be associated with any attribute, information, demographic profile, or geographic parameter established for the user or advertiser site, and is not limited to the location of the user. For example, different click-per-view amounts can be established for different search keywords for the advertiser site. An advertiser may choose to associate an advertiser site with multiple search keywords, but establish different pay-per-click amounts based upon the particular keyword that was used to list the advertiser site from the user search query. Additionally, different click-per-view amounts can be established based upon the geographic location of the user. If additional click-per-view associations are established, these association amounts can be placed in column 414 of table 400. These additional amounts provide additional criteria to use in the bidding process for listing advertiser sites in response to a user query.

Column 416 identifies any time and/or frequency windows that are set by an advertiser for a particular advertiser site. This feature exists because an advertiser may not wish to allow a user to continuously earn a reward each time that the user views/visits an

advertiser site, if those viewings/visits are too frequent or close together in time. Thus, the advertiser may wish to establish a time or frequency window that limits the rewards that a user can earn for a particular advertiser site within a certain time period. For example, column 416 of row 404 indicates that rewards cannot be awarded to the same user more than once in any one month time period for visiting advertiser site\_2. Similarly, column 416 of row 406 indicates that the specified rewards cannot be awarded to the same user more than once in any one-year period for visiting advertiser site\_3. Note, however, that column 416 for row 402 indicates that no such limitations are in place for advertiser site\_1. Thus, a user can visit site\_1 as much as he/she wants, and will be correspondingly rewarded for each visit without limit.

Column 418 specifies any activities that a user must perform to earn the click-per-view amount for an advertiser site. Under certain circumstances, an advertiser may wish a user to be rewarded only if the user completes a specific activity while that user is at the advertiser site. For example, column 418 for row 406 indicates that the user will be awarded the reward only if the user fills out a questionnaire while at the advertiser site. Alternatively, the user can be asked to fill out the questionnaire before the user is linked to the advertiser site. Column 418 of row 402 indicates that a user will be awarded the reward only if the user stays at the advertiser site longer than 10 minutes. Note that no such activity requirement is in place for site\_2 of row 404, in which column 418 for this row indicates that there are no activity requirements before a user is awarded his/her reward for visiting the advertiser site.

Column 420 provides geographic limitations upon the rewards to be awarded to users. For example, site\_1 associated with row 402 is limited to the United States. Only users in the U.S. are eligible to receive a reward for viewing site\_1. Similarly, site\_3 (row 406) is limited to English-speaking countries. Only users in English speaking countries are eligible to receive a reward for viewing site\_3. This is in contrast to site\_2, which is open to users in all countries. The basis for the information used for this attribute can be found from a user's profile. When a user registers with the advertising system, his/her geographic location is identified. In addition, the user's location can be identified by



determining the address of the particular computer terminal that a user utilizes to access the advertising system.

For the purposes of illustration, only a few attributes of each advertiser site are listed in Fig. 4, but additional attributes can be listed by adding more attribute columns to table 400. For example, an additional attribute column that can be employed is a "Total Clicks" column, which is used to track the total number of user clicks for each advertiser site. Another example of an additional attribute column that can be employed is a "Status" column, which provides a status of the advertiser site with respect to the bidding process. One purpose for the status column is if an advertiser has decided to stop paying a CPC amount for a particular site, but users in the past have already visited that site and earned the previously posted reward amounts. The status column flags the advertiser site as one that no longer pays for a CPC amount, yet allows the other advertiser site attribute information to remain in table 400.

One or more database structures can be employed to track general information about each advertiser in the system. For each registered advertiser, an account balance is maintained, which is reduced by a corresponding CPC amount when a user clicks on that advertiser's site. A field in the database structure is for the advertiser's payment schedule, which can be used to indicate whether an advertiser's account balance is to be recharged automatically if it falls below a certain threshold amount, whether it is recharged on a periodic basis, or whether it is charged on a one-time basis. Additionally, a specific recharge amount can be specified. Another field in the database structure indicates the advertiser's preferred payment method (e.g., credit card and credit card number). In addition, a field can be utilized specifying the "autobid" preferences of an advertiser, in which an advertiser is permitted to specify autobidding increments to maintain the advertiser's relative bid amount to other advertisers. For example, an advertiser can maintain a specific bid ranking (e.g., as the highest bidder) or a range ranking (e.g., within the top five bidders) by indicating that its bid amount is to be automatically incremented, subject to an optional cap amount, to maintain that specified bid ranking.

Fig. 5A illustrates an example of a relational database table 500 that can be used to track reward amounts to be awarded to users for accessing advertiser sites. Each row in

table 500 corresponds to a separate access of an advertiser site by a user. Since table 500 stores such information for multiple users, column 508 of table 500 identifies the specific user that is associated with an entry in table 500. Column 510 identifies the advertiser site that was accessed by a user. Column 512 indicates the date/time at which the user visited an advertiser site. This field is used to determine whether a user can received a reward for visiting an advertiser site, or if a time/frequency window exists to block the user from receiving a reward. Column 514 identifies the reward amount that the user is awarded for visiting the advertiser site.

The example of Fig. 5A shows a single table that is used to store information for multiple users. Alternatively, a separate table structure can be maintained for each user. Referring to Fig. 5B, shown is a relational database table 520 that is directed to only a single user (i.e., user "John Doe"). Each row in table 520 corresponds to a different visit made by John Doe to an advertiser site. Column 528 identifies the specific advertiser site that was visited by John Doe. Column 530 provides the date/time at which John Doe visited the advertiser site. Column 532 identifies the reward amount that was earned by John Doe by visiting the advertiser site. Since table 520 is specific to user John Doe, information about other users must be maintained in other tables.

In the embodiment of Fig. 5C, a database table can be maintained on a per advertiser site basis, in which a separate table is maintained for each advertiser site. Thus, table 540 is an example of a table that is maintained to track visits to advertiser site "site\_2". Each entry in table 540 corresponds to a separate visit by a user. Thus, column 546 identifies a user that has visited the advertiser site, and column 548 identifies the date/time of that access. Column 550 specifies the reward amount that was awarded to that use for the visit. Column 552 identifies the access location that the user used to access the advertiser site.

Note that the above database structures are presented merely as illustrative examples, as other structures can be employed within the scope of the invention. Other and additional table, column, or row types can be employed depending upon the particular application to which the invention is directed, and such variations from the table structures shown are expressly within the scope of the invention. For example, an additional

attribute column can be employed in Fig. 5A to track the bid amount associated with each user click (such a bid amount column is not shown in Fig. 5A). The bid amount may differ from the user amount indicated in Column 514 of Fig. 5A. This may occur, for example, if a user clicks on an advertiser site too soon after a previous click to the same advertiser site (i.e., within the time interval window 416 of the advertiser site). In that circumstance, the reward amount for the second click may be zero, but for record-keeping purposes, the bid amount would still be tracked in the bid amount column.

One approach to control the amount of time that users must stay at an advertiser site is to utilize a database structure that records the last click time/date for each user. In this approach, the last click time/date for each user is checked when the user clicks onto a new advertiser site. This determines the user's eligibility for the specified reward amount from the advertiser. The user is given the specific reward only if the elapsed time since the user's last click time/date has exceeded a threshold time/date value. If the user clicks onto the same or different advertiser site too close in time to the user's previous click to an advertiser site, then no reward will be given to the user. This approach prevents users from successively and rapidly jumping from advertiser site to advertiser site in an attempt to increase the user's total reward amount.

Fig. 6A depicts a flowchart of an embodiment of a process that can be employed to display advertising information to a user. Initially, a user provides search terms to be used to determine the proper advertising to display to that user. For example, the user may be at a computer terminal visiting a "yellow pages" information website, in which the user seeks to find retail locations for a particular product. At the yellow pages website, the user may enter keywords directed to the product he/she is searching about. At process action 602, the advertising system receives the user request for information.

At process action 604, a search is performed to determine whether there exists any advertising sites/advertisements responsive to the user information request. A search engine may be employed to perform this search. For example, if table 400 of Fig. 4 is utilized, then the "keywords" column of table 400 can be searched to determine if there are any rewards-based advertiser sites responsive to the user request. If reward-based advertiser sites are found, then they are sorted based upon their click-per-view bidding

amount (606). Links to advertiser sites having relatively higher bidding amounts are listed more prominently than the advertiser sites having relatively lower amounts (608). If the invention is utilized with a generalized search engine, then the search engine may discover non-reward-based advertiser sites as well as reward-based advertiser sites responsive to the user request. If so, then links to the non-reward-based advertiser sites are thereafter presented, albeit preferably less prominently than the reward-based advertiser sites (610).

Continuing from the process of Fig. 6A, Fig. 6B provides a flowchart of an embodiment of a process for determining reward amounts to be awarded to a user for visiting an advertiser site. At process action 620, the user selects a link for a rewards-based advertiser site. The selected advertiser site or advertisement is thereafter displayed to the user (622).

At process action 624, a determination is made whether the user has previously visited the advertiser site. If the table structures of Figs. 5A, 5B, or 5C are employed to track a user's visits to advertiser sites, then these tables can be searched to find prior user visits. If the user has previously visited the advertiser site, then the date/time of the prior access is retrieved (626). The present date/time is compared to the date/time of the prior access to determine whether the user is outside of any specified time/frequency windows for obtaining rewards (628). If the user is visiting the advertiser site too soon after the prior visit, then a message is displayed indicating that the user is not eligible to receive a reward for visiting the advertiser site (638).

If, however, the user is eligible to receive the reward, then a determination is made whether there exists any required user activities to be performed before the reward can be awarded (630). If the table structure of Fig. 4 is employed, then the activity column 418 is checked for the advertiser site to make this determination. If there are no required activities, then the user is awarded the specified reward amount (636).

If user is required to perform certain activities, then a message is displayed to the user indicating the activity required to earn the reward (632). Note that this information can also be presented to the user during the search process of Fig. 6A, in which the link to the advertiser site also contains this activity information. At process action 634, a

determination is made whether the user has fulfilled the activity requirement. If not, then a message is displayed indicating that the user is not eligible to receive a reward amount.

If, however, the user has fulfilled the activity requirement, then the user is awarded the appropriate amount. If the table structure of Fig. 4 is employed, then column 414 is  
5 accessed to determine the appropriate reward amount.

Note that the processes of Figs. 6A and 6B are illustrative examples, and that other process actions can also be employed. For example, a geographic check can be made to determine whether the user is entitled to receive any reward amounts.

## 10 **Method and Mechanism to Address Automated CPC Clicking**

An issue faced by CPC systems is the use of automated clicking systems or utilities that can, without significant human intervention, mechanically perform required actions to earn advertiser rewards. Such automated clicking systems can be implemented using macro programs that repeatedly simulate the series of expected steps that are normally  
15 required to earn designated reward amounts. Such automated systems subvert the intent of CPC systems, and result in payment of CPC rewards without the expected consumer attention returns to the advertisers.

A feature of the invention comprises a method and mechanism to address such automated systems, by requiring users of CPC systems to perform required actions that  
20 may change across multiple CPC activities or users. Before a reward amount is given to a user, instructions are displayed describing the activity that must be performed by the user to obtain the reward amount. Automated systems cannot be used if the required user activity is changed in a non-predictable manner between different CPC activities or users. The specific type, combination, or activity that must be performed by the user is  
25 determined in a non-predictable manner each time a user is eligible for a CPC reward. The selection process can be implemented using a random or pseudo-random algorithm for selecting the specific user activity from a pool of candidate user activities that must be performed. Once the selection has been made, instructions are presented to the user indicating the required activity.

According to an embodiment of the invention, a user is required to click upon a displayed graphic or image in order to earn the advertised reward amount. The relative position of the graphic on the user's display is randomly or pseudo-randomly positioned/selected for each CPC activity. In addition, multiple graphics can be displayed, with the user required to select a designated one of the displayed graphics. Because the relative position or type of image that must be clicked by the user may change between different CPC activities, it would be very difficult for an automated utility to mechanically implement the required clicking activity.

Referring to Fig. 9, shown is an example of a web browser 900 containing a search results page 902 according to an embodiment of the invention. In the example of Fig. 9, search results page 902 illustrates a set of possible results from placing a search through the invention for the consumer attention topic "flowers". The top portion of search results page 902 includes various user control and status components, including a search window 908 for entering new search terms, a rewards display 910 for displaying the reward amount earned by the user during the current user session, and several user control buttons 912 for accessing, reviewing, and modifying user status and control information. Section 906 of search results page 902 provides information for results of the present search. An example combination of results information is shown in section 906.

Section 914 of search results page 902 displays some or all of the websites/advertiser sites that are returned from a search for the consumer attention topic "flowers". Shown in Fig. 9 are links to five sites that relate to the consumer attention topic that is the subject of the search. The first three sites provide advertiser reward amounts for consumer CPC activity, as indicated by the reward amount displays 516a, 516b, and 516c. The last two sites do not provide any advertiser reward amounts, as shown by the empty reward amount displays 516d and 516e. Note that the first three sites have been sorted, with the link to the advertiser site having the highest reward amount placed in the most prominent (e.g., highest) position. The links to the non-reward sites can be displayed in any other desired order, e.g., in order of relevance to the search term(s).

To prevent automated performance of CPC activities, search results page 902 includes non-predictively placed graphics that must be clicked by the user to earn the

displayed reward amounts. In this example, two boxes (518a and 518b) are displayed next to the link for each site. One of the boxes is visibly distinguishes from the other, e.g., by containing a "\$" symbol (518a). A non-predictive algorithm is utilized to determine the placement of the distinguishing graphic, such as commonly known random number or pseudo-random number generators. The user is then instructed to click upon the box containing the graphic in order to earn the reward amount and/or to link to the advertiser site. While Fig. 2 also shows the non-reward amount sites to include this feature, direct links can also be employed for such non-reward sites.

This feature of the invention is not limited to requiring users to click upon randomly placed or selected images. Any non-predictive combination or selection of required user activities can be employed to address automated clicking utilities according to the invention. Even the type of activity to be performed by the user can be randomly selected such that different activities are performed by different users to earn advertise rewards, even for the same advertiser sites.

### **System Architecture Overview**

Within the scope of an embodiment of the invention, a server computer sends selected commercial messages to specific locations. A terminal device at a retail outlet or user location is individually addressable. The server, communicatively connected to the terminal device, selectively tags commercial messages with routing information and terminal addresses, and transmits the messages on the network to be received and displayed by the addressed terminals. The terminal includes a monitor and an input device, optionally comprising a magnetic stripe card reader or bar code reader.

A system of the present invention may be centrally controlled and maintained. Alternatively, the retail outlet may maintain terminals at each retail outlet. For example, the terminal may be leased to the outlet under a license. The network operator is the franchiser and the retail outlet terminal is maintained by a franchisee. The franchiser may police the network to give quality control, detect fraud and revoke the franchises or licenses due to poor quality upkeep.

Referring to Fig. 7, in an embodiment, a computer system 720 includes a host computer 722 connected to a plurality of individual user stations 724. In an embodiment, the user stations 724 each comprise suitable data terminals, for example, but not limited to, e.g., personal computers, portable laptop computers, or personal data assistants ("PDAs"), which can store and independently run one or more applications, i.e., programs. For purposes of illustration, some of the user stations 724 are connected to the host computer 722 via a local area network ("LAN") 726. Other user stations 724 are remotely connected to the host computer 722 via a public telephone switched network ("PSTN") 728 and/or a wireless network 730.

In an embodiment, the host computer 722 operates in conjunction with a data storage system 731, wherein the data storage system 731 contains a database 732 that is readily accessible by the host computer 722. In alternative embodiments, the database 732 may be resident on the host computer, stored, e.g., in the host computer's ROM, PROM, EPROM, or any other memory chip, and/or its hard disk. In yet alternative embodiments, the database 732 may be read by the host computer 722 from one or more floppy disks, flexible disks, magnetic tapes, any other magnetic medium, CD-ROMs, any other optical medium, punchcards, papertape, or any other physical medium with patterns of holes, or any other medium from which a computer can read. In an alternative embodiment, the host computer 722 can access two or more databases 732, stored in a variety of mediums, as previously discussed.

Referring to Fig. 8, in an embodiment, each user station 724 and the host computer 722, each referred to generally as a processing unit, embodies a general architecture 805. A processing unit includes a bus 806 or other communication mechanism for communicating instructions, messages and data, collectively, information, and one or more processors 807 coupled with the bus 806 for processing information. A processing unit also includes a main memory 808, such as a random access memory (RAM) or other dynamic storage device, coupled to the bus 806 for storing dynamic data and instructions to be executed by the processor(s) 807. The main memory 808 also may be used for storing temporary data, i.e., variables, or other intermediate information during execution of instructions by the processor(s) 807.



A processing unit may further include a read only memory (ROM) 809 or other static storage device coupled to the bus 806 for storing static data and instructions for the processor(s) 807. A storage device 810, such as a magnetic disk or optical disk, may also be provided and coupled to the bus 806 for storing data and instructions for the processor(s) 807.

A processing unit may be coupled via the bus 806 to a display device 811, such as, but not limited to, a cathode ray tube (CRT), for displaying information to a user. An input device 812, including alphanumeric and other keys, is coupled to the bus 806 for communicating information and command selections to the processor(s) 807. Another type of user input device may include a cursor control 813, such as, but not limited to, a mouse, a trackball, a fingerpad, or cursor direction keys, for communicating direction information and command selections to the processor(s) 807 and for controlling cursor movement on the display 811.

According to one embodiment of the invention, the individual processing units perform specific operations by their respective processor(s) 807 executing one or more sequences of one or more instructions contained in the main memory 808. Such instructions may be read into the main memory 808 from another computer-usable medium, such as the ROM 809 or the storage device 810. Execution of the sequences of instructions contained in the main memory 808 causes the processor(s) 807 to perform the processes described herein. In alternative embodiments, hard-wired circuitry may be used in place of or in combination with software instructions to implement the invention. Thus, embodiments of the invention are not limited to any specific combination of hardware circuitry and/or software.

The term "computer-usable medium," as used herein, refers to any medium that provides information or is usable by the processor(s) 807. Such a medium may take many forms, including, but not limited to, non-volatile, volatile and transmission media. Non-volatile media, i.e., media that can retain information in the absence of power, includes the ROM 809. Volatile media, i.e., media that can not retain information in the absence of power, includes the main memory 808. Transmission media includes coaxial cables, copper wire and fiber optics, including the wires that comprise the bus 806. Transmission media can also take the form of carrier waves; i.e., electromagnetic waves that can be

modulated, as in frequency, amplitude or phase, to transmit information signals. Additionally, transmission media can take the form of acoustic or light waves, such as those generated during radio wave and infrared data communications.

Common forms of computer-usable media include, for example: a floppy disk,  
5 flexible disk, hard disk, magnetic tape, any other magnetic medium, CD-ROM, any other optical medium, punchcards, papertape, any other physical medium with patterns of holes, RAM, ROM, PROM (i.e., programmable read only memory), EPROM (i.e., erasable programmable read only memory), including FLASH-EPROM, any other memory chip or cartridge, carrier waves, or any other medium from which a processor 807 can retrieve  
10 information.

Various forms of computer-usable media may be involved in providing one or more sequences of one or more instructions to the processor(s) 807 for execution. For example, the instructions may initially be provided on a magnetic disk of a remote computer (not shown). The remote computer may load the instructions into its dynamic  
15 memory and then transit them over a telephone line, using a modem. A modem local to the processing unit may receive the instructions on a telephone line and use an infrared transmitter to convert the instruction signals transmitted over the telephone line to corresponding infrared signals. An infrared detector (not shown) coupled to the bus 806 may receive the infrared signals and place the instructions therein on the bus 806. The bus  
20 806 may carry the instructions to the main memory 808, from which the processor(s) 807 thereafter retrieves and executes the instructions. The instructions received by the main memory 808 may optionally be stored on the storage device 810, either before or after their execution by the processor(s) 807.

Each processing unit may also include a communication interface 814 coupled to  
25 the bus 806. The communication interface 814 provides two-way communication between the respective user stations 724 and the host computer 722. The communication interface 814 of a respective processing unit transmits and receives electrical, electromagnetic or optical signals that include data streams representing various types of information, including instructions, messages and data.

30 A communication link 815 links a respective user station 724 and a host computer 722. The communication link 815 may be a LAN 726, in which case the communication

interface 814 may be a LAN card. Alternatively, the communication link 815 may be a PSTN 728, in which case the communication interface 814 may be an integrated services digital network (ISDN) card or a modem. Also, as a further alternative, the communication link 815 may be a wireless network 730.

5           A processing unit may transmit and receive messages, data, and instructions, including program, i.e., application, code, through its respective communication link 815 and communication interface 814. Received program code may be executed by the respective processor(s) 807 as it is received, and/or stored in the storage device 810, or other associated non-volatile media, for later execution. In this manner, a processing unit  
10           may receive messages, data and/or program code in the form of a carrier wave.

          In the foregoing specification, the invention has been described with reference to specific embodiments thereof. It will, however, be evident that various modifications and changes may be made thereto without departing from the broader spirit and scope of the invention. For example, the reader is to understand that the specific ordering and  
15           combination of process actions shown in the process flow diagrams described herein is merely illustrative, and the invention can be performed using different or additional process actions, or a different combination or ordering of process actions. The specification and drawings are, accordingly, to be regarded in an illustrative rather than restrictive sense.

**CLAIMS:**

1. A method of searching and retrieving links to web sites containing a topic of consumer attention having consumer reward amounts, comprising:

5 maintaining a set of one or more first database tables corresponding to advertiser web sites, said set of one or more first database tables including a first database field containing identifier information for said advertiser web sites, said set of one or more first database tables including a second database field containing web address information for said advertiser web sites, said set of one or more first database tables including a third  
10 database field containing one or more bid amounts for said advertiser web sites;

maintaining a second set of one or more database tables corresponding to user information, said second set of one or more database tables including user identification information, said second set of one or more database tables including reward amount information;

15 receiving a search query corresponding to a topic of consumer attention, said search query relating to one or more search terms;

processing said search query to identify which of said advertiser web sites correspond to said search terms;

20 sorting said advertiser web sites that are identified to correspond to said search terms, said advertiser web sites sorted based upon said one or more bid amounts stored in said third database field in said set of one or more first database tables;

25 displaying links to said advertiser web sites that are identified to correspond to said search terms in a sorted order with higher-bid advertiser web sites displayed more prominently than lower-bid advertiser web sites, said links based upon said web addresses stored in said database field of said set of one or more first database tables;

receiving information indicating selection of one of said links to said advertiser web sites by a user; and

storing advertiser reward amount information corresponding to a bid amount for a selected advertiser web site into said second set of one or more database.

2. The method of claim 1 further comprising:

displaying a web page from said selected advertiser web site.

3. The method of claim 1 in which said set of one or more first database tables

5 includes a fourth database field containing advertiser search terms that relate to  
corresponding said advertiser web sites, and the action of processing said search query to  
identify which of said advertiser web sites correspond to said search terms comprises  
matching said search terms to advertiser search terms stored in said fourth database field  
of said set of one or more first database tables.

10

4. The method of claim 1 in which the action of storing said advertiser reward  
amount information corresponding to said bid amount for said selected advertiser web site  
into said second set of one or more database is performed only if said user is outside of a  
time window.

15

5. The method of claim 4 in which said time window is a fixed time period for all  
said advertiser web sites.

6. The method of claim 4 in which said time window has a length that is determined  
20 based upon a specific advertiser web site.

7. The method of claim 1 further comprising:

displaying instructions for a series of user actions, said series of user actions not  
identical for every selection of said links to said advertiser web sites; and

25

storing said advertiser reward amount information corresponding to said bid  
amount for said selected advertiser web site into said second set of one or more database is  
performed only if said instructions for said series of user actions are performed.

8. The method of claim 7 further comprising:

30

displaying a selectable image; and

non-predictively placing a relative position for said selectable image in which said instructions for said series of user actions include instructions for selection of said selectable image;

5     9.     The method of claim 7 further comprising:  
displaying a plurality of selectable images, in which said instructions for said series of user actions include instructions for selection of one of said plurality of selectable images.

10     10.    The method of claim 1 further comprising:  
10         processing said search query to identify web sites that are not advertiser web sites with bid amounts that correspond to said search terms; and  
displaying links to said web sites identified to correspond to said search terms.

15     11.    A method of marketing consumer attention for advertising information comprising:  
15         identifying a topic of consumer attention;  
searching a database for advertising information related to said topic of consumer attention;  
sorting a list of said advertising information based upon relative bid amounts by advertisers for display of said advertising information, with relatively more prominent  
20     display for said advertising information having a higher corresponding bid amount;  
displaying said sorted list of said advertising information in a selectable format;  
selecting an item of said advertising information from said sorted list of said advertising information;  
displaying said item of selected advertising information; and  
25     providing a corresponding bid amount for said item of selected advertising information as a reward for performing the act of selecting said item of said advertising information for display.

30     12.    The method of claim 11 in which the action of displaying said sorted list of said advertising information in a selectable format comprises:

displaying a list of one or more hyperlinks to web sites for advertisers corresponding to said topic of consumer attention.

13. The method of claim 12 in which the action of selecting an item of said advertising information from said sorted list of said advertising information comprises:

linking to an advertiser web site from said list of one or more hyperlinks to web sites for advertisers corresponding to said topic of consumer attention.

14. The method of claim 12 in which the action of displaying said item of selected advertising information comprises:

displaying an advertiser web page.

15. The method of claim 11 further comprising:

maintaining said database by storing at least one bid amount for a searchable keyword, said searchable keyword related to an advertiser web site in said database.

16. The method of claim 15 in which multiple keywords are maintained for said advertiser web site.

17. The method of claim 15 in which said at least one bid amount adjusted based upon the viewing location for said advertiser web site.

18. The method of claim 15 in which said database includes a field relating to a time window for said advertiser web site in which said bid amount is not awarded if said advertiser web site is viewed by a user within said time window.

19. The method of claim 11 further comprising:

maintaining a user database for users performing the action of selecting said item of said advertising information from said sorted list of said advertising information, said user database comprising identifiers for said users and reward amounts corresponding to said users.

20. The method of claim 19 in which said user database further includes viewing times for said users.

21. The method of claim 19 in which a different user table is maintained for each specific user.

22. The method of claim 19 in which a different user table is maintained for each advertiser web site.

23. The method of claim 11 further comprising:  
displaying instructions for a series of user actions for providing said reward, said series of user actions not identical for every selection of said item of said advertising information; and  
providing said reward only if said instructions for said series of user actions are performed.

24. The method of claim 23 further comprising:  
displaying a selectable image before providing said reward; and  
non-predictively placing a relative position for said selectable image in which said instructions for said series of user actions include instructions for selection of said selectable image;

25. The method of claim 23 further comprising:  
displaying a plurality of selectable images before providing said reward, in which said instructions for said series of user actions include instructions for selection of one of said plurality of selectable images.

26. A computer program product that includes a medium usable by a processor, the medium having stored thereon a sequence of instructions which, when executed by said processor, causes said processor to execute a process for marketing consumer attention for advertising information, said process comprising:



identifying a topic of consumer attention;

searching a database for advertising information related to said topic of consumer attention;

5        sorting a list of said advertising information based upon relative bid amounts by  
advertisers for display of said advertising information, with relatively more prominent  
display for said advertising information having a higher corresponding bid amount;

displaying said sorted list of said advertising information in a selectable format;

selecting an item of said advertising information from said sorted list of said  
advertising information;

10       displaying said item of selected advertising information; and

providing a corresponding bid amount for said item of selected advertising  
information as a reward for performing the act of selecting said item of said advertising  
information for display.

15    27.    A process for displaying advertiser information comprising:

maintaining an advertising information database, said advertising information  
database having a first data field for searchable keywords, a second data field for a bid  
amount, and a third data field for an identifier for an advertiser web site;

20       inserting a first set of advertising information for a first advertiser web site into  
said advertising information database, said first set of advertising information including a  
first searchable keyword and a first bid amount corresponding to said first advertiser web  
site;

25       inserting a second set of advertising information for a second advertiser web site  
into said advertising information database, said second set of advertising information  
including a second searchable keyword and a second bid amount corresponding to said  
second advertiser web site;

identifying a topic of consumer attention;

searching for information relating to said topic of consumer attention;

30       identifying said first and second searchable keywords as being related to said topic of  
consumer attention;

sorting said first and second bid amounts;

displaying a first link for said first advertiser web site and a second link for said second advertiser web site, more prominently displaying a respective one of said first or second links to said first or second advertiser web site having a higher corresponding bid amount;

5           awarding said first bid amount after selection of said first link to said first advertiser web site; and

            awarding said second bid amount after selection of said second link to said second advertiser web site.

10   28.    The process of claim 27 in which said topic of consumer attention is a user search term and said act of identifying said first and second searchable keywords as being related to said topic of consumer attention is performed by identifying whether said first and second searchable keywords are related to said user search term.

15   29.    The process of claim 27 in which another searchable keyword is associated with said first advertiser web site and is also utilized to identify advertiser web sites related to said topic of consumer attention.

20   30.    The process of claim 27 in which said advertising information database includes a fourth data field for a required user activity, said first set of advertising information includes a first required user activity, wherein said act of awarding said first bid amount after selection of said first link to said first advertiser web site is performed only if said first required user activity is performed.

25   31.    The process of claim 27 in which said advertising information database includes a fourth data field for a geographic location, said first set of advertising information includes an identifier of a first geographic location, wherein said act of awarding said first bid amount after selection of said first link to said first advertiser web site is performed only if a user is in said first geographic location.

32. The process of claim 27 in which another bid amount is associated with said first advertiser web site.

33. The process of claim 27 in which the act of awarding said first bid amount after selection of said first link to said first advertiser web site is performed only if said selection of said first link is performed outside of a specified time window.

34. A computer program product that includes a medium usable by a processor, the medium having stored thereon a sequence of instructions which, when executed by said processor, causes said processor to execute a process for searching and retrieving links to web sites containing a topic of consumer attention having consumer reward amounts, said process comprising:

maintaining a set of one or more first database tables corresponding to advertiser web sites, said set of one or more first database tables including a first database field containing identifier information for said advertiser web sites, said set of one or more first database tables including a second database field containing web address information for said advertiser web sites, said set of one or more first database tables including a third database field containing one or more bid amounts for said advertiser web sites;

maintaining a second set of one or more database tables corresponding to user information, said second set of one or more database tables including user identification information, said second set of one or more database tables including reward amount information;

receiving a search query corresponding to a topic of consumer attention, said search query relating to one or more search terms;

processing said search query to identify which of said advertiser web sites correspond to said search terms;

sorting said advertiser web sites that are identified to correspond to said search terms, said advertiser web sites sorted based upon said one or more bid amounts stored in said third database field in said set of one or more first database tables;

displaying links to said advertiser web sites that are identified to correspond to said search terms in a sorted order with higher-bid advertiser web sites displayed more

prominently than lower-bid advertiser web sites, said links based upon said web addresses stored in said database field of said set of one or more first database tables;

receiving information indicating selection of one of said links to said advertiser web sites by a user; and

5 storing advertiser reward amount information corresponding to a bid amount for a selected advertiser web site into said second set of one or more database.

35. A method of creating a market for trading human attention at specific retail outlets, comprising the steps of:

- 10 (a) providing a system comprising plural computers connected to a digital computer network, said network carrying and routing digital information between said plural computers, said plural computers including at least one personal computer associated with at least one user, at least one computer associated with at least one attention broker, at least one computer associated with at least one
- 15 sponsor of commercial messages, said personal computer having a display device and at least one user input device, the display device being capable of providing a visual display based at least in part on the digital information delivered to the personal computer via said network, said displayed information including at least one visual link associated with one of said information provider computers, said
- 20 user being able to operate said user input device to select and activate said link in order to erect a network connection to said information provider computer,
- (b) generating a database of profile data for each retail outlet, wherein said profile data comprise location and goods sold at said retail outlet and/or demographics of shoppers visiting said outlet;
- 25 (c) communicating said database to prospective sponsors of commercial messages;
- (d) inviting sponsors to bid for presenting commercial messages at a terminal at a specific retail outlet with a cost-per-click offer;
- (e) prioritizing the plurality of offers with respect to each retail outlet
- 30 based on the offer prices from sponsors,

(f) controlling the transmission of commercial messages from said plurality of offers to said terminals so that a message from the higher bidder gets corresponding priority presentation on said terminal at the selected retail outlet.

5

36. A method for selectively delivering commercial messages to shoppers in retail outlets over a digital computer advertising network, wherein shoppers are compensated for paying attention to commercial messages on an award-per-click basis, comprising the steps of:

10

(a) providing a system comprising plural computers connected to a digital computer network, said network carrying and routing digital information between said plural computers, said plural computers including at least one personal computer associated with at least one user, at least one computer associated with at least one attention broker, at least one computer associated with at least one sponsor of commercial messages, said personal computer having a display device and at least one user input device, the display device being capable of providing a visual display based at least in part on the digital information delivered to the personal computer via said network, said displayed information including at least one visual link associated with one of said information provider computers, said user being able to operate said user input device to select and activate said link in order to erect a network connection to said information provider computer,

15

20

25

(b) providing data profile of individual retail outlets to commercial message sponsors and obtaining a plurality of offers from sponsors for what the sponsors will pay for each viewer's attention to the sponsor's commercial message posted to a terminal in a selected retail outlet based on the data profile of each retail outlet,

30

(c) prioritizing said plurality of offers with respect to each retail outlet based on the offer prices from sponsors,

(d) controlling the transmission of commercial messages from said plurality of offers to said terminals so that a message from the higher bidder correspondingly gets priority presentation on said terminal in the selected retail outlet,

5 (e) attracting shoppers to view said commercial messages by offering shoppers a reward following such viewing;

(f) compensating, via the server, the shopper in connection with the viewing of the commercial message.

10 37. The method of claim 36, wherein said user's interaction with said commercial message is noted by said system, where said interaction includes selecting and activating a visual link that is contained within said commercial message and that is associated with an account of message sponsor, thereby connecting the terminal via the network to the sponsor's computer and receiving the commercial message from the sponsor's computer;  
15 and compensating, via server, the user in connection with said interaction.

38. A digital computer advertising network for selective delivery of commercial messages and purchasing shoppers' attention to the commercial messages in a selected retail outlet, comprising:

20 (a) a first terminal in a first retail outlet and a second terminal in a second retail outlet, a server in communication with said first and second terminals, wherein each of said terminals is capable of presenting a plurality of commercial messages and has a unique network address;

25 (b) one or more databases operatively associated with said server and containing network addresses of said first and second terminals and profile data associated with said first and second retail outlets;

(c) a source of commercial messages from sponsors;

30 (d) a bidding means operatively associated with said server for (i) providing said profile data associated with said first and second retail outlets to sponsors of commercial messages, (ii) receiving bids from said sponsors for displaying their commercial messages on said first terminal

and receiving bids from said sponsors for displaying their commercial messages on said second terminal, (iii) selecting a first commercial message from the highest bidder for said first terminal for transmission to said first terminals and selecting a second commercial message from the highest bidder for said second terminal for transmission to said second terminal; and

(e) said server causing the transmission, over said network from said source to said terminal, of commercial messages identified with the network address of said terminal.

(f) a reward means, integrated with the commercial message, for compensating a shopper for paying attention to a specific commercial message, the compensation thereby enhancing the effectiveness of the advertisements presented on the display means by attracting customers into using the system

39. The system of claim 38, wherein said terminal comprises:

(a) input means for accepting commands and data from customers using the system, the data including customer identifications;

(b) display means for selectively presenting data to the customers; and

(c) control program means, executed by a computer operatively connected to the input means and display means, for managing the input means and display means.

40. A server on a digital computer network for attracting and facilitating user computer terminals on said network to connect with advertisers' computers on said network, comprising:

(a) a first database for storing a plurality of linkages to advertisers' computers, each linkage associated with (i) an advertiser, (ii) one or more search terms identifying said linkage, and (iii) a bidding price from said advertiser;

(b) communication means for establishing communication with a plurality of user computer terminals on said network and providing said user computer terminals access to linkages stored with said first database;

(c) search means for allowing said user computer terminals to search said first database for linkages based on search term input at said user computer terminals;

(d) award means for allocating a fraction of said bidding price as a reward to a user who uses a user computer terminal to select and activate a linkage through said server to connect with an advertiser's computer;

(e) selection means for selecting a plurality of linkages from said first database meeting a search term from a user, ranking the selected linkages based on the magnitude of the allocated rewards, and displaying on the user's computer terminal the selected linkages in an order of prominence based on their rankings and identifying the allocated rewards to said user, and, when said user selects and activates a selected linkage on the user computer terminal, the server effects a network connection between said user computer terminal and advertiser's computer;

(f) a second database for storing accounts corresponding to advertisers who store linkages in said first database;

(g) a third database for storing accounts corresponding to users who search for linkages in said first database;

(h) debit means for debiting advertisers' accounts in response to selection and activation of said advertisers' linkages; and

(i) credit means for crediting users' accounts with rewards in response to selection and activation of said advertisers' linkages.

41. A method for attracting and facilitating user computer terminals on a digital computer network to connect with advertisers' computers on said network, wherein the network comprises (i) a plurality of advertiser computers associated with advertisers, and (ii) a plurality of user computer terminals associated with individual users, each of said user computer terminal having a display device and at least one user input device, the



display device being capable of providing a visual display based at least in part on the digital information delivered to the user computer terminal through said network, said displayed information including at least one visual linkage associated with one of the advertisers' computers, users being able to operate said user input device to select and activate said linkage to establish a network connection between said user computer terminal and an advertiser's computer, comprising the steps of:

- (a) providing a server comprising a first database for storing a plurality of linkages to advertisers' computers, each linkage associated with (i) an advertiser, (ii) one or more search terms identifying said linkage, and (iii) a bidding price from said advertiser;
- (b) allocating a fraction of said bidding price as a reward to a user who uses a user computer terminal to select and activate a linkage through said server to connect with an advertiser's computer;
- (c) searching said first database for linkages based on search term input at a user computer terminals;
- (d) selecting a plurality of linkages from said first database meeting a search term from a user, ranking the selected linkages based on the magnitude of the allocated rewards,
- (e) displaying on the user's computer terminal via the network the selected linkages in an order of prominence based on their rankings and identifying the allocated rewards to said user,
- (f) noting said user's interaction with said linkages, where said interaction includes selecting and activating a linkage that is associated with an advertiser's computer, thereby connecting the user computer terminal via the network to the advertiser's computer and receiving commercial messages on the advertiser's computer; and
- (g) providing the reward associated with the linkage to the user in connection with said interaction.

42. A digital computer advertising system for attracting and awarding human attention to commercial messages, comprising:

(a) a server comprising a database of commercial messages or linkages to a plurality of advertisers' computers, wherein said server is connected to a digital computer network and capable of establishing communication linkage with a plurality of computer terminals connected to said digital computer network, each of said terminals has (i) a user input device that allows a user to direct said terminal to communicate with said server through said digital computer network, and (ii) a display device capable of providing a visual display based at least in part on digital information delivered from said server via said network, wherein, upon the establishment of a communication link with one of said terminals over said network, said server causing the transmission of digital information to said terminal and the display on said display device of a first visual icon encapsulating a commercial message and a second visual icon identifying a reward, wherein the encapsulated commercial message is unfolded and displayed to a user who selects and activates said first visual icon, and said reward is thereafter provided to said user; and

(b) said reward is a collectible physical object that (i) contains a first indicia uniquely associated with said selection and activation of said first visual icon and/or a specific time period when said selection and activation of said first visual icon happened, (ii) contains a second indicia for verifying the authenticity of said reward, and (iii) is adapted to be redeemed for a monetary prize or a trading privilege.

43. The digital computer advertising system of claim 42, wherein the number of said reward is limited by the number of selection and activation of said first visual icon.

44. The digital computer advertising system of claim 42, wherein said indicia for verifying the authenticity of the reward includes machine readable symbols on the reward.

45. The digital computer advertising system of claim 44, wherein said machine readable symbols comprise a serial number or mathematical code.

46. The digital computer advertising system of claim 42, wherein said commercial message is provided by a computer connected to said digital network and is associated with a sponsor, said first visual icon comprises an embedded linkage to said sponsor computer, and upon the selection and activation of the first visual icon, the server effects a linkage between said user terminal and said sponsor computer and the display of said commercial message on said display device.

47. A method for attracting and awarding human attention to commercial messages presented through a digital computer advertising system, comprising the steps of:

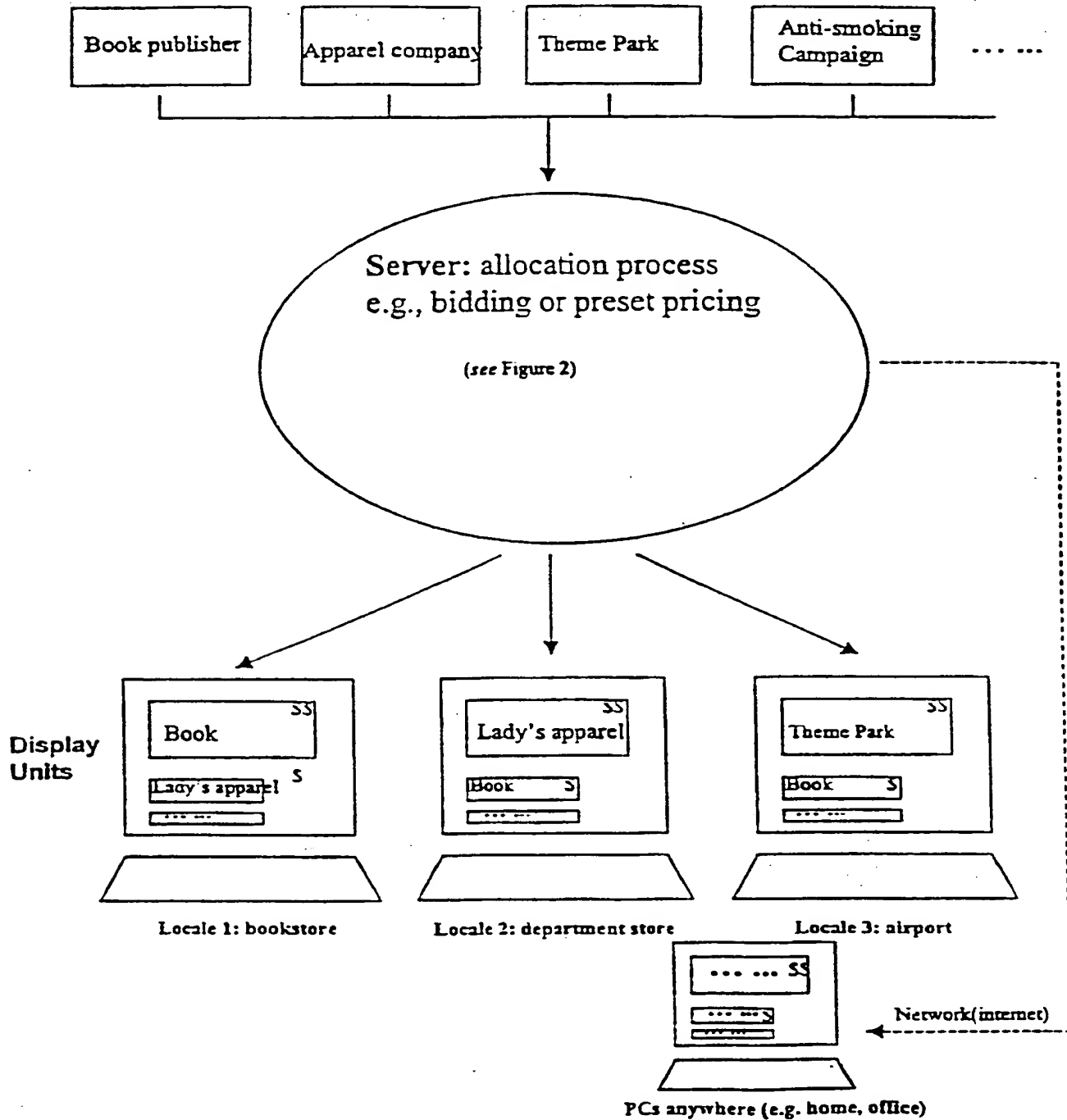
- (a) providing a server comprising a database of commercial messages or linkages to a plurality of advertisers' computers, wherein said server is connected to a digital computer network and capable of establishing communication linkage with a plurality of computer terminals connected to said digital computer network, each of said terminals has (i) a user input device that allows a user to direct said terminal to communicate with said server through said digital computer network, and (ii) a display device capable of providing a visual display based at least in part on digital information delivered from said server via said network, wherein, upon the establishment of a communication link with one of said terminals over said network, said server causing the transmission of digital information to said terminal and the display on said display device of a first visual icon encapsulating a commercial message and a second visual icon identifying a reward, wherein the encapsulated commercial message is unfolded and displayed to a user who selects and activates said first visual icon; and thereafter, providing a reward to said user, wherein said reward is a collectible physical object that (i) contains a first indicia uniquely associated with said selection and activation of said first visual icon and/or a specific time period when said selection and activation of said first visual icon happened, (ii) contains a second indicia for verifying the authenticity of said reward, and (iii) is adapted to be redeemed for a monetary prize or a trading privilege.

48. The method of claim 47, wherein the number of said reward is limited by the number of selection and activation of said first visual icon.

49. The method of claim 47, wherein said indicia for verifying the authenticity of the  
5 reward includes machine readable symbols on the reward.

50. The method of claim 49, wherein said machine readable symbols comprise a serial number or mathematical code.

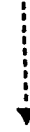
FIGURE 1: ELECTRONIC MARKET MAKER OF CONSUMER ATTENTION



## FIGURE 2: BIDDING PROCESS

Bidding information from different advertisers on different locales (more \$ means higher CPC)

Terminal locale sponsor	Bookstore	Department store	Airport
Book publisher	\$\$\$	\$	\$
Apparel company	\$\$	\$\$\$	-
Theme park	\$	-	\$\$



Ad placement priority  
rendered from  
the bidding process

### Bookstore

1. Book publisher
2. Apparel company
3. Theme park

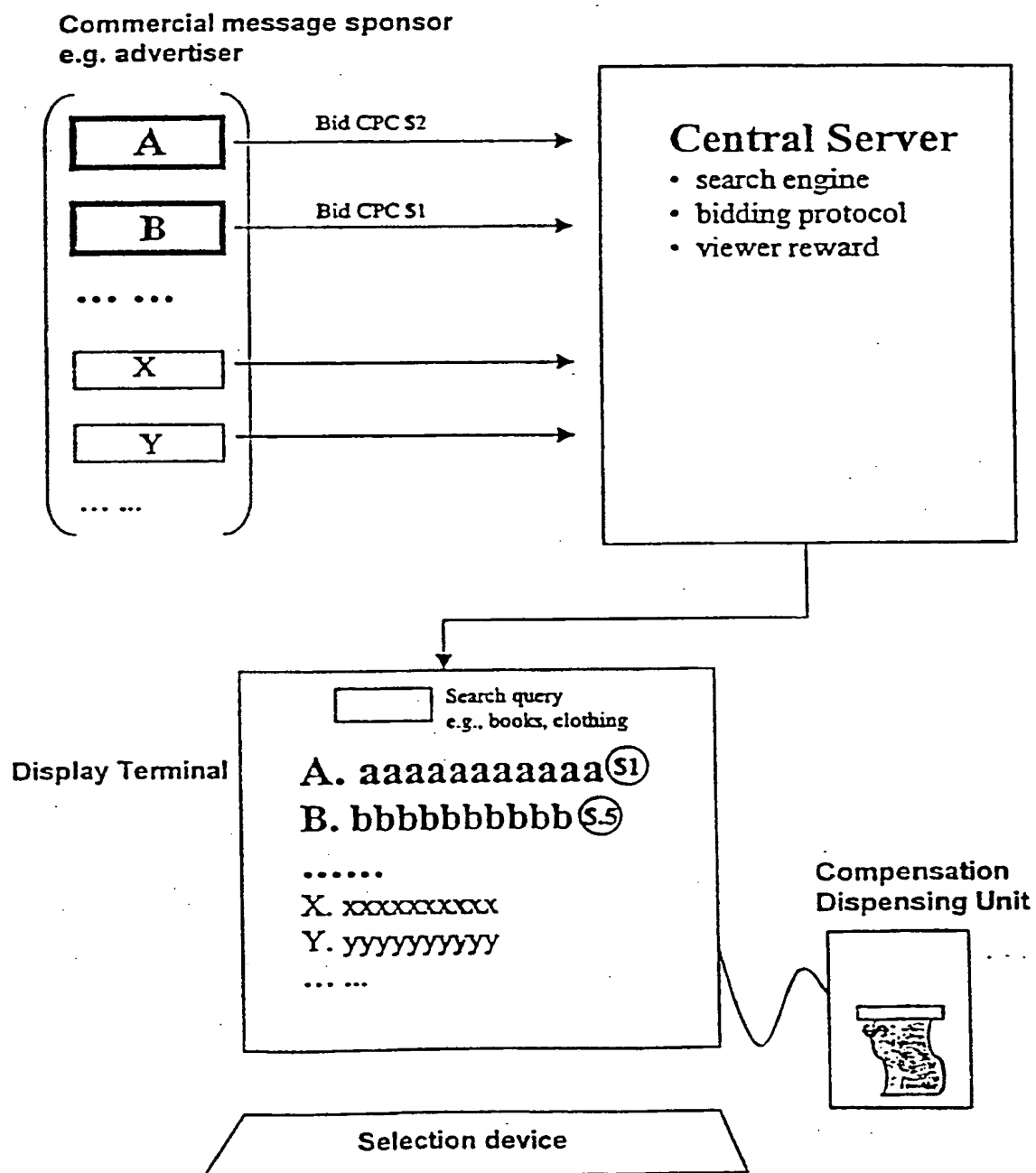
### Department store

1. Apparel company
2. Book publisher

### Airport

1. Theme park
2. Book publisher

FIGURE 3: IMPROVED CPC ADVERTISING



advertiser site	advertiser	keywords	amount	time window	activity to perform	geographic location
site_1	company 1	books	book store - \$1.00 Dept. store - \$0.50 airport - \$0.25 all others - \$0.10	None	stay at site > 10 minutes	United States
site_2	company 1	cars, engines	book store - \$0.50 auto-store - \$1.00 home - \$0.10 all others - \$0.05	1 month	none	All countries
site_3	company 2	books	book store - \$0.75 Dept. store - \$0.05 All other - \$0.00	1 year	fill out questionnaire	English speaking countries
.	.	.	.	.	.	.
.	.	.	.	.	.	.
.	.	.	.	.	.	.

FIG. 4



User ID	Advertiser Site	Access Time	Reward amount
John Doe	site_1	10/10/99 9:00 a.m.	0.50
Jim Smith	site_2	10/11/99 10:00 a.m.	1.00
John Doe	site_2	10/11/99 11:00 a.m.	1.00

FIG. 5A

528	Advertiser site	530	Access time	532	Reward amount
522	site_1		10/10/99 9:00 a.m.		\$0.50
524	site_2		10/11/99 11:00 a.m.		\$1.00
526	.	.	.	.	.
	.	.	.	.	.
	.	.	.	.	.

User-John Doe Table

FIG. 5B

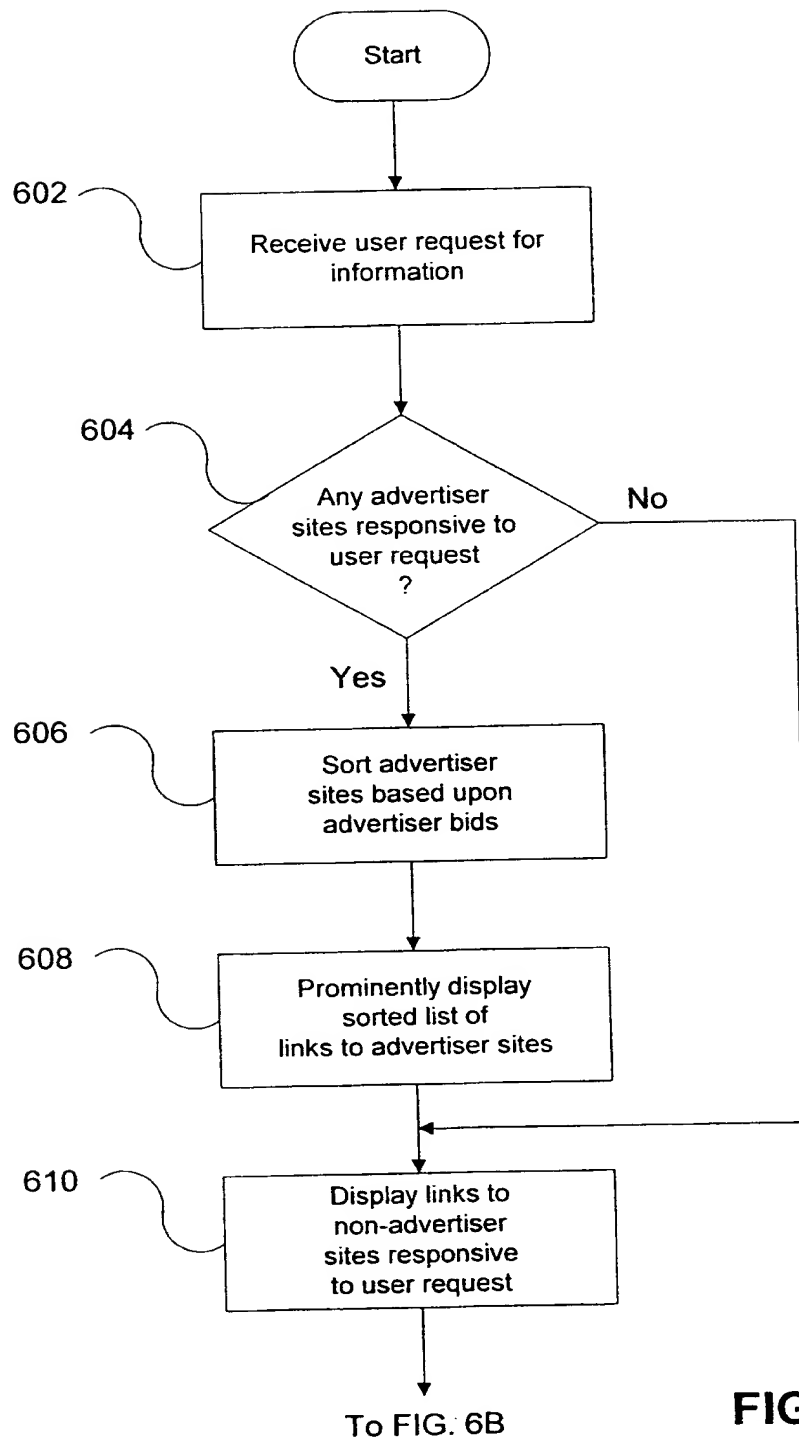
520

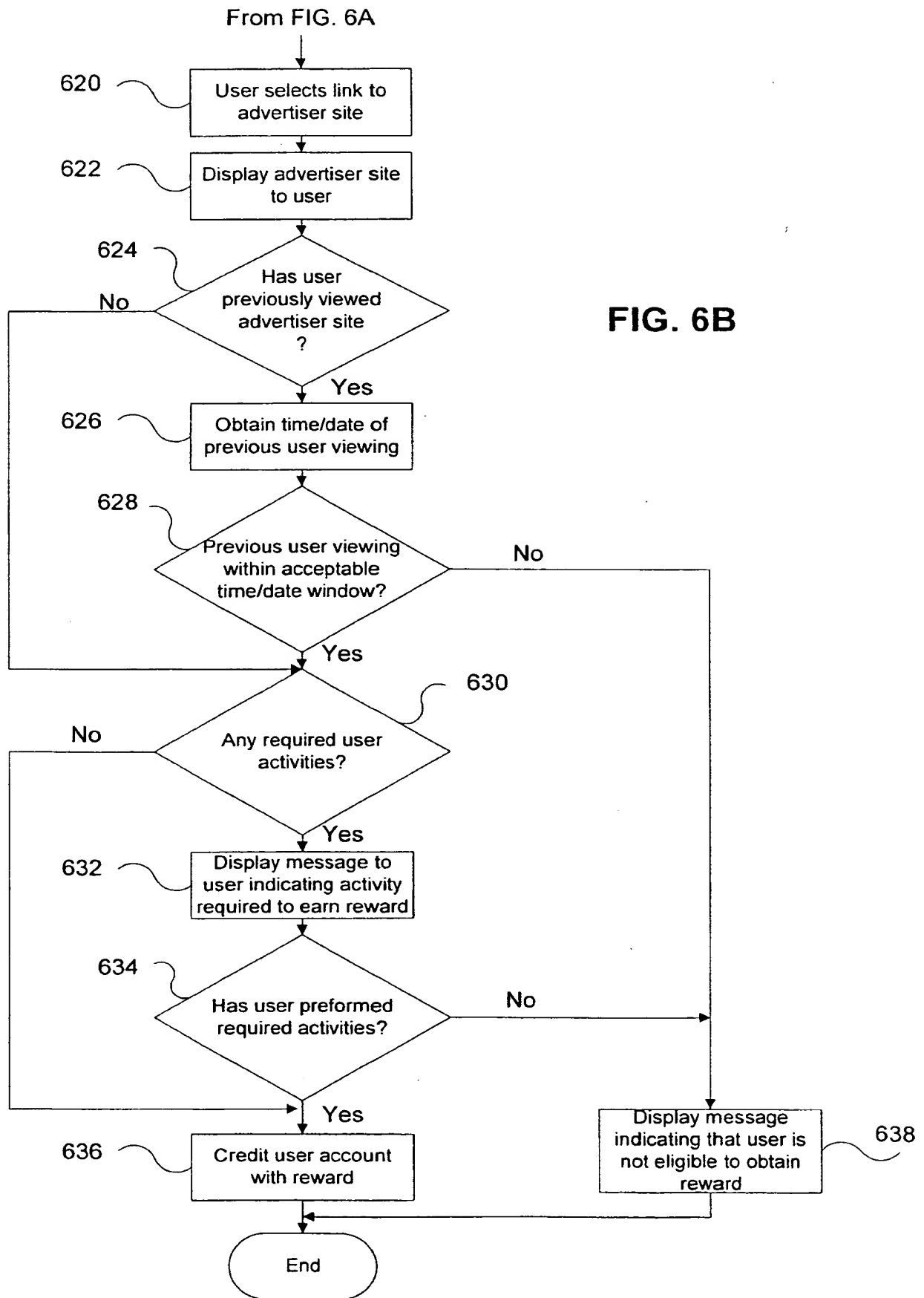
546	548	550	552
User	access time	reward amount	access location
542	10/11/99 10:00 a.m.	1.00	auto store #1
544	10/11/99 11:00 a.m.	1.00	auto store #3
.	.	.	.
.	.	.	.
.	.	.	.

Site\_2 Table

FIG. 5C

540

**FIG. 6A**



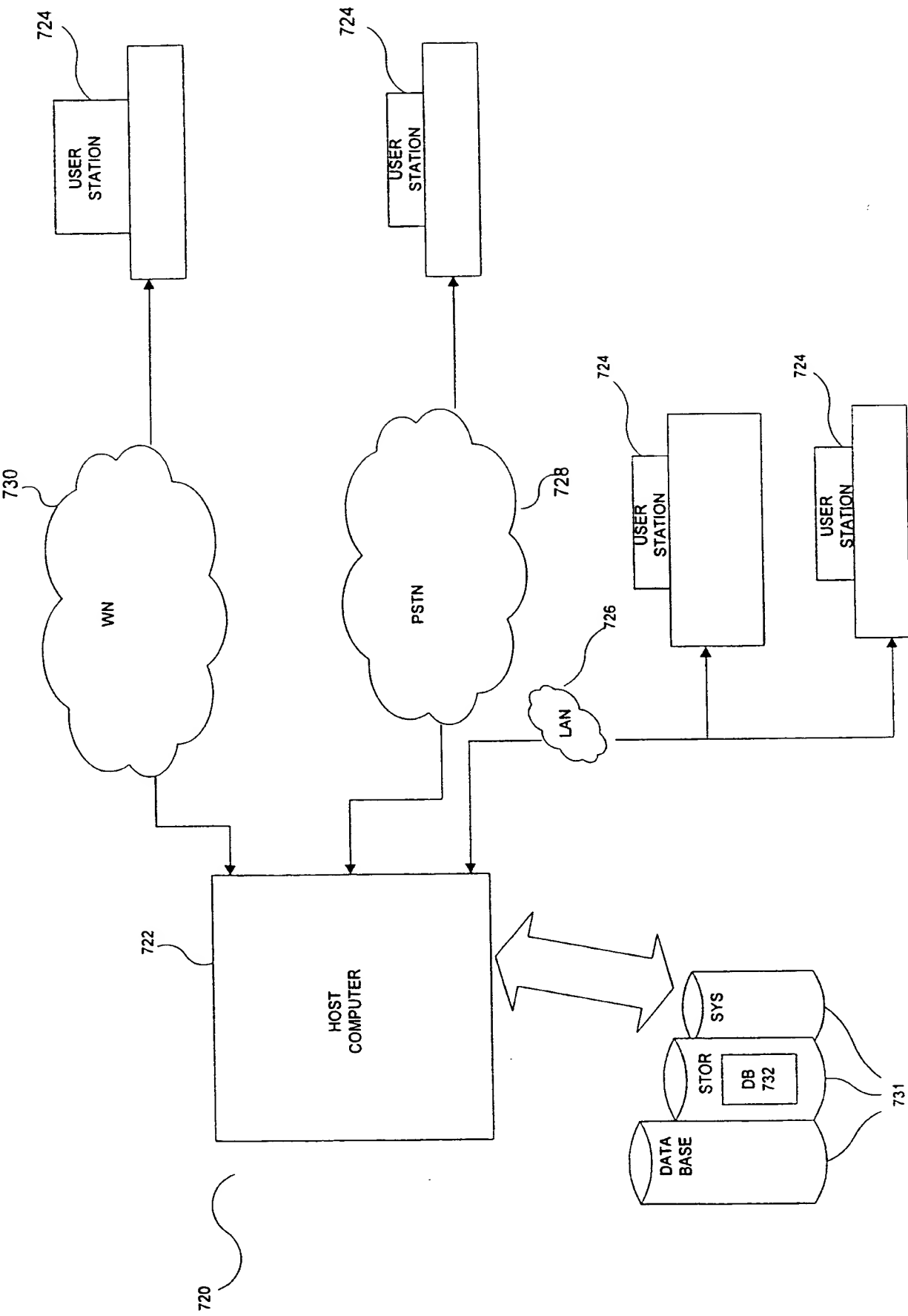


FIG. 7

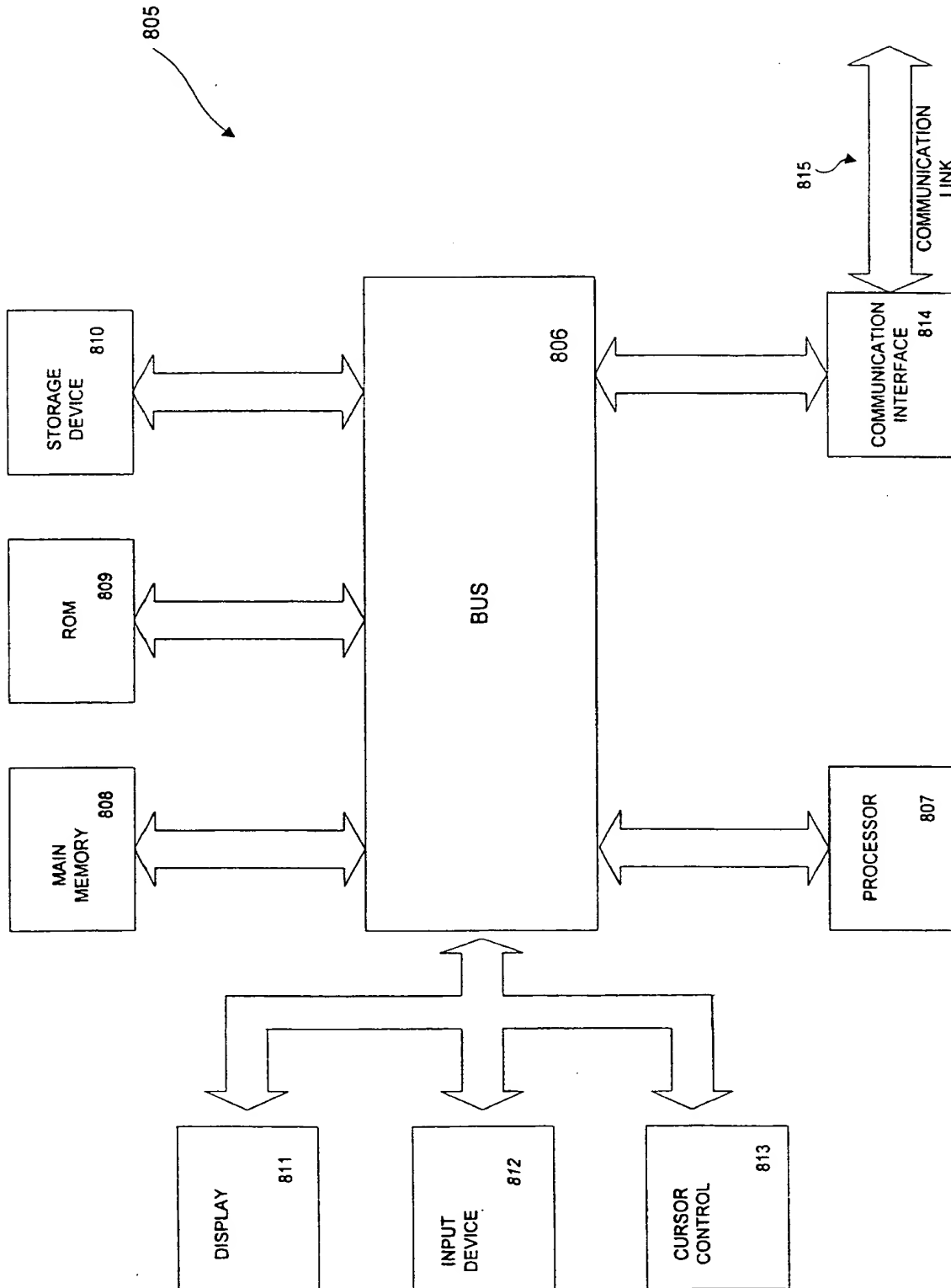


FIG. 8

Fig. 9

